United States
Environmental Protection
Agency

EPA530-R-07-001
April 2007

National Priority Chemicals Trends Report (2000-2004)

Section 3
Overall Trends Analyses for Priority Chemicals (2000-2004)

Hazardous Waste Minimization and Management Division
Office of Solid Waste
U.S. Environmental Protection Agency

Contact Information:

Bill Kline, Senior Data Analyst
Analysis & Information Branch
(540) 341-3631
kline.bill@epa.gov

Tammie Owen, Data Analyst
Analysis & Information Branch
(703) 308-4044
owen.tammie@epa.gov

Ben Lesser, Chief
Analysis & Information Branch
(703) 308-0314
lesser.ben@epa.gov

Section 3
Overall Trends Analyses for Priority Chemicals (2000-2004)

Introduction

This section provides an overview of the national, EPA region, state, and industry sector quantities of the 24 aggregated Priority Chemicals (PCs), for which data are reported to the TRI for the 2000-2004 reporting years. We are focusing on the five most current years of TRI data to most easily show variable, potential opportunities for reducing or eliminating PCs. The data presented in this section were derived using the PC Measurement TRI methodology (see Appendix C) and primarily focuses on trends for the aggregated quantity of PCs. We have presented a discussion of the trends for individual PCs in Section 4.

National Trends for Priority Chemicals

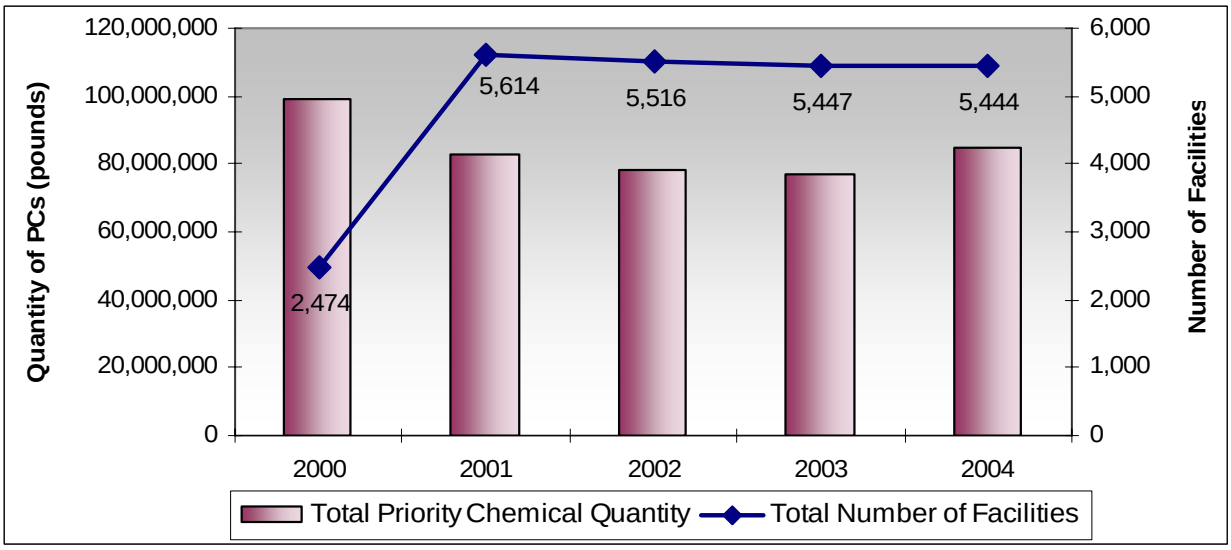
Exhibits 3.1 and 3.2 show the total quantity of PCs from 2000-2004, as well as the number of facilities reporting these chemicals. In 2002, the quantity of PCs actually decreased, despite a 227 percent increase in the number of reporting facilities compared to 2000. Most of the increased number of facilities in 2001 likely are attributed to the lowered TRI reporting threshold for lead and lead compounds. Facilities reporting decreased quantities of numerous PCs (including lead and lead compounds) more than offset the relatively small quantities of lead and lead compounds reported due to the lowered reporting threshold for this PC.

Since 2001, the number of facilities reporting PCs has been relatively consistent. From 2001 to 2003, the total quantity of PCs decreased. However, in 2004 the quantity significantly increased. We believe much of this increase resulted from quantities of several PCs reported by a few large facilities. For example, new equipment installed at a Louisiana facility substantially improved this facility's ability to detect PCs in waste streams compared to previous measurements, which may mean that the increase may not be real.

Exhibit 3.1. Total Quantity and Number of Facilities for the Priority Chemicals, 2000−2004

TRI Reporting Year	2000	2001	2002	2003	2004
Total quantity of PCs (pounds)	99,414,030	82,517,853	78,117,538	77,030,691	84,724,529
Number of TRI facilities reporting PC quantity	2,474	5,614	5,516	5,447	5,444

Exhibit 3.2. Total Quantity (pounds) and Number of Facilities Reporting Priority Chemicals, 2000−2004



In 2004, facilities reported approximately 84.7 million pounds of PCs, representing a decrease of almost 15 million pounds, or approximately 15 percent, compared to the total quantity of PCs reported in 2000 (Exhibit 3.3). Three of the PCs (lead and lead compounds (lead), polycyclic aromatic compounds (PACs), and naphthalene) comprised approximately 70 percent of the total national PC quantity. Lead consistently have accounted for the majority of the total national PC quantity, comprising approximately 38 percent of the PCs in 2004. Nearly 14 million pounds of PACs and 13 million pounds of naphthalene accounted for approximately 16 percent and 15 percent, respectively, of the total national quantity of PCs in 2004.

Of the 24 PCs reported to TRI, the quantity of 17 decreased during the period 2000-2004. These included decreases of at least 1 million pounds for six of the PCs: lead, PACs, naphthalene, hexachoro-1,3-butadiene, hexachloroethane, and benzo(g,h,i)perylene. Individual chemicals with relatively large increases in quantity included hexachlorobenzene, phenanthrene, and 1,2,4-trichlorobenzene.

Exhibit 3.3. Total Quantity by Priority Chemical, 2000−2004

Chemical Name	2000 (pounds)	2001 (pounds)	2002 (pounds)	2003 (pounds)	2004 (pounds)	Change in Quantity (2000−2004)	Percent Change (2000−2004)	Percent of Total PC Quantity (2004)
Lead and lead compounds	37,428,072	36,139,492	34,098,442	35,069,921	31,967,610	-5,460,462	-14.6%	37.7%
Polycyclic aromatic compounds	16,570,049	14,082,123	12,775,052	12,655,240	13,809,093	-2,760,957	-16.7%	16.3%
Naphthalene	14,425,578	9,994,513	11,028,479	10,294,471	13,081,776	-1,343,802	-9.3%	15.4%
Hexachloro-1,3-butadiene	11,297,081	6,404,741	5,167,385	5,566,299	7,874,707	-3,422,374	-30.3%	9.3%
Hexachlorobenzene	5,934,761	5,765,382	4,208,705	4,270,659	6,485,490	550,729	9.3%	7.7%
Hexachloroethane	5,709,981	4,145,249	4,056,497	2,694,131	3,772,853	-1,937,128	-33.9%	4.5%
Phenanthrene	1,017,538	236,240	2,309,338	1,817,805	2,348,265	1,330,727	130.8%	2.8%
1,2,4-Trichlorobenzene	1,189,077	2,144,696	1,527,029	1,674,802	1,888,685	699,608	58.8%	2.2%
Cadmium and cadmium compounds	1,488,696	932,493	746,474	824,080	885,122	-603,574	-40.5%	1.0%
Pentachlorobenzene	239,852	487,719	311,145	484,733	608,691	368,839	153.8%	0.7%
Anthracene	546,353	360,837	345,499	419,243	520,669	-25,684	-4.7%	0.6%
Pendimethalin	674,131	200,195	421,827	429,551	475,695	-198,436	-29.4%	0.6%
Benzo(g,h,i)perylene	2,104,401	990,522	310,885	317,817	374,449	-1,729,953	-82.2%	0.4%
Quintozene	307,766	215,122	205,107	235,816	280,987	-26,779	-8.7%	0.3%
Pentachlorophenol	69,832	54,339	36,856	28,295	117,264	47,432	67.9%	0.1%
Trifluralin	88,257	92,863	62,544	57,392	81,668	-6,589	-7.5%	0.1%
Polychlorinated biphenyls	109,472	55,665	104,806	54,426	67,758	-41,714	-38.1%	0.1%
Mercury and mercury compounds	87,120	127,526	93,888	36,732	51,697	-35,423	-40.7%	0.1%
Dibenzofuran	92,848	66,726	288,926	75,605	24,942	-67,906	-73.1%	0.0%
2,4,5-Trichlorophenol	32,443	20,657	17,913	22,857	5,083	-27,360	-84.3%	0.0%
Heptachlor	0	0	14	54	775	775	NA	0.0%
Methoxychlor	17	1	1	0	766	749	4353.5%	0.0%
Dioxin and dioxin-like compounds	640	706	543	692	484	-156	-24.3%	0.0%
Lindane	64	46	183	71	0	-64	-100.0%	0.0%
Total	**99,414,030**	**82,517,853**	**78,117,538**	**77,030,691**	**84,724,529**	**-14,689,501**	**-14.8%**	**100.0%**

Exhibit 3.4 shows, for each of the PCs in 2004, the number of facilities that reported the PC within various quantities ranges. For most of the PCs, only a relatively small number of facilities accounted for the majority of the total quantity reported. For example, of the 4,621 facilities that reported a PC quantity of lead and lead compounds in 2004, five facilities accounted for 24 percent of the total quantity, and 53 facilities accounted for approximately 69 percent of the total quantity.

Please note that the total number of facilities shown in this exhibit may differ from the total number of facilities shown in Exhibits 3.1 and 3.2 because numerous facilities reported more than one PC.

Exhibit 3.4. Number of Facilities That Reported Each Priority Chemical by Quantity Range in 2004

Quantity Reported (2004)	Number of Facilities Reporting This Quantity	Percent of Total Quantity for This PC
1,2,4 - Trichlorobenzene (1,888,685 pounds)		
up to 10 pounds	2	less than 0.1%
Between 11 - 100 pounds	0	0.0%
Between 101 -1,000 pounds	5	0.1%
Between 1,001 - 10,000 pounds	4	0.9%
Between 10,001 - 100,000 pounds	4	13.0%
Between 100,001 - 1 million pounds	1	6.6%
> 1 million pounds	1	79.5%
2,4,5 - Trichlorophenol (5,083 pounds)		
up to 10 pounds	0	0%
between 11 - 100 pounds	0	0%
between 101 -1,000 pounds	0	0%
between 1,001 - 10,000 pounds	1	100.00%
between 10,001 - 100,000 pounds	0	0%
between 100,001 - 1 million pounds	0	0%
> 1 million pounds	0	0%
Anthracene (520,669 pounds)		
up to 10 pounds	5	less than 0.1%
between 11 - 100 pounds	11	0.1%
between 101 -1,000 pounds	14	0.8%
between 1,001 - 10,000 pounds	6	4.6%
between 10,001 - 100,000 pounds	6	38.3%
between 100,001 - 1 million pounds	1	56.2%
> 1 million pounds	0	0.0%
Benzo(g,h,i)perylene (374,449 pounds)		
up to 10 pounds	236	0.1%
between 11 - 100 pounds	80	0.9%
between 101 -1,000 pounds	40	3.3%
between 1,001 - 10,000 pounds	17	14.7%
between 10,001 - 100,000 pounds	6	27.2%
between 100,001 - 1 million pounds	1	53.9%
> 1 million pounds	0	0.0%

Exhibit 3.4. Number of Facilities That Reported Each Priority Chemical by Quantity Range in 2004

Quantity Reported (2004)	Number of Facilities Reporting This Quantity	Percent of Total Quantity for This PC
Cadmium and Cadmium Compounds (885,122 pounds)		
up to 10 pounds	17	less than 0.1%
between 11 - 100 pounds	1	less than 0.1%
between 101 -1,000 pounds	17	0.7%
between 1,001 - 10,000 pounds	16	8.3%
between 10,001 - 100,000 pounds	10	30.8%
between 100,001 - 1 million pounds	2	60.1%
> 1 million pounds	0	0.0%
Dibenzofuran (24,942 pounds)		
up to 10 pounds	3	0.1%
between 11 - 100 pounds	0	0.0%
between 101 -1,000 pounds	4	3.3%
between 1,001 - 10,000 pounds	4	96.7%
between 10,001 - 100,000 pounds	0	0.0%
between 100,001 - 1 million pounds	0	0.0%
> 1 million pounds	0	0.0%
Dioxin and Dioxin-Like Compounds (484 pounds)		
up to 10 pounds	369	14.4%
between 11 - 100 pounds	8	59.3%
between 101 -1,000 pounds	1	26.4%
between 1,001 - 10,000 pounds	0	0.0%
between 10,001 - 100,000 pounds	0	0.0%
between 100,001 - 1 million pounds	0	0.0%
> 1 million pounds	0	0.0%
Heptachlor (775 pounds)		
up to 10 pounds	1	1.2%
between 11 - 100 pounds	1	98.8%
between 101 -1,000 pounds	0	0.0%
between 1,001 - 10,000 pounds	0	0.0%
between 10,001 - 100,000 pounds	0	0.0%
between 100,001 - 1 million pounds	0	0.0%
> 1 million pounds	0	0.0%
Hexachloro-1,3-butadiene (7,874,707 pounds)		
up to 10 pounds	0	0.0%
between 11 - 100 pounds	0	0.0%
between 101 -1,000 pounds	0	0.0%
between 1,001 - 10,000 pounds	1	less than 0.1%
between 10,001 - 100,000 pounds	0	0.0%
between 100,001 - 1 million pounds	1	12.2%
> 1 million pounds	2	87.7%

Exhibit 3.4. Number of Facilities That Reported Each Priority Chemical by Quantity Range in 2004

Quantity Reported (2004)	Number of Facilities Reporting This Quantity	Percent of Total Quantity for This PC
Hexachlorobenzene (6,485,490 pounds)		
up to 10 pounds	9	less than 0.1%
between 11 - 100 pounds	7	less than 0.1%
between 101 -1,000 pounds	5	less than 0.1%
between 1,001 - 10,000 pounds	6	0.3%
between 10,001 - 100,000 pounds	3	0.9%
between 100,001 - 1 million pounds	4	23.7%
> 1 million pounds	1	75.1%
Hexachloroethane (3,772,853 pounds)		
up to 10 pounds	0	0.0%
between 11 - 100 pounds	0	0.0%
between 101 -1,000 pounds	1	less than 0.1%
between 1,001 - 10,000 pounds	0	0.0%
between 10,001 - 100,000 pounds	3	2.7%
between 100,001 - 1 million pounds	4	17.9%
> 1 million pounds	1	79.4%
Lead and Lead Compounds (31,967,610 pounds)		
up to 10 pounds	1,599	less than 0.1%
between 11 - 100 pounds	1,076	0.1%
between 101 -1,000 pounds	1,096	1.3%
between 1,001 - 10,000 pounds	583	6.1%
between 10,001 - 100,000 pounds	214	23.4%
between 100,001 - 1 million pounds	48	45.3%
> 1 million pounds	5	23.8%
Mercury and Mercury Compounds (51,697 pounds)		
up to 10 pounds	352	1.8%
between 11 - 100 pounds	185	11.4%
between 101 -1,000 pounds	45	24.2%
between 1,001 - 10,000 pounds	10	62.6%
between 10,001 - 100,000 pounds	0	0.0%
between 100,001 - 1 million pounds	0	0.0%
> 1 million pounds	0	0.0%
Methoxychlor (766 pounds)		
up to 10 pounds	0	0.0%
between 11 - 100 pounds	0	0.0%
between 101 -1,000 pounds	1	100.0%
between 1,001 - 10,000 pounds	0	0.0%
between 10,001 - 100,000 pounds	0	0.0%
between 100,001 - 1 million pounds	0	0.0%
> 1 million pounds	0	0.0%

Exhibit 3.4. Number of Facilities That Reported Each Priority Chemical by Quantity Range in 2004

Quantity Reported (2004)	Number of Facilities Reporting This Quantity	Percent of Total Quantity for This PC
Naphthalene (13,081,776 pounds)		
up to 10 pounds	102	less than 0.1%
between 11 - 100 pounds	90	less than 0.1%
between 101 -1,000 pounds	155	0.5%
between 1,001 - 10,000 pounds	156	4.6%
between 10,001 - 100,000 pounds	97	24.0%
between 100,001 - 1 million pounds	37	59.0%
> 1 million pounds	1	12.9%
Pendimethalin (475,695 pounds)		
up to 10 pounds	0	0.0%
between 11 - 100 pounds	0	0.0%
between 101 -1,000 pounds	0	0.0%
between 1,001 - 10,000 pounds	2	1.1%
between 10,001 - 100,000 pounds	4	44.2%
between 100,001 - 1 million pounds	1	54.7%
> 1 million pounds	0	0.0%
Pentachlorobenzene (608,691 pounds)		
up to 10 pounds	0	0.0%
between 11 - 100 pounds	2	less than 0.1%
between 101 -1,000 pounds	2	0.3%
between 1,001 - 10,000 pounds	1	0.4%
between 10,001 - 100,000 pounds	0	0.0%
between 100,001 - 1 million pounds	2	99.3%
> 1 million pounds	0	0.0%
Pentachlorophenol (117,264 pounds)		
up to 10 pounds	0	0.0%
between 11 - 100 pounds	2	0.1%
between 101 -1,000 pounds	7	3.3%
between 1,001 - 10,000 pounds	4	12.3%
between 10,001 - 100,000 pounds	2	84.4%
between 100,001 - 1 million pounds	0	0.0%
> 1 million pounds	0	0.0%
Phenanthrene (2,348,265 pounds)		
up to 10 pounds	4	less than 0.1%
between 11 - 100 pounds	10	less than 0.1%
between 101 -1,000 pounds	20	0.4%
between 1,001 - 10,000 pounds	12	2.0%
between 10,001 - 100,000 pounds	4	3.5%
between 100,001 - 1 million pounds	5	94.1%
> 1 million pounds	0	0.0%

Exhibit 3.4. Number of Facilities That Reported Each Priority Chemical by Quantity Range in 2004

Quantity Reported (2004)	Number of Facilities Reporting This Quantity	Percent of Total Quantity for This PC
Polychlorinated Biphenyls (67,758 pounds)		
up to 10 pounds	5	0.0%
between 11 - 100 pounds	16	1.0%
between 101 -1,000 pounds	9	3.0%
between 1,001 - 10,000 pounds	5	35.1%
between 10,001 - 100,000 pounds	1	60.9%
between 100,001 - 1 million pounds	0	0.0%
> 1 million pounds	0	0.0%
Polycyclic Aromatic Compounds (13,809,093 pounds)		
up to 10 pounds	238	less than 0.1%
between 11 - 100 pounds	162	less than 0.1%
between 101 -1,000 pounds	133	0.3%
between 1,001 - 10,000 pounds	89	2.2%
between 10,001 - 100,000 pounds	43	9.8%
between 100,001 - 1 million pounds	13	32.1%
> 1 million pounds	6	55.7%
Quintozene (280,987pounds)		
up to 10 pounds	0	0.0%
between 11 - 100 pounds	0	0.0%
between 101 -1,000 pounds	1	0.2%
between 1,001 - 10,000 pounds	0	0.0%
between 10,001 - 100,000 pounds	1	9.1%
between 100,001 - 1 million pounds	1	90.7%
> 1 million pounds	0	0.0%
Trifluralin (81,668 pounds)		
up to 10 pounds	0	0.0%
between 11 - 100 pounds	2	0.2%
between 101 -1,000 pounds	2	1.0%
between 1,001 - 10,000 pounds	4	23.2%
between 10,001 - 100,000 pounds	1	75.6%
between 100,001 - 1 million pounds	0	0.0%
> 1 million pounds	0	0.0%

How Were Priority Chemicals Managed?

As previously discussed in Section 1, the total PC quantity comprises those quantities of the PCs that are managed onsite/offsite via disposal, treatment, and energy recovery. Exhibit 3.5 shows the national trends regarding the methods used to manage the PCs in 2000-2004. Compared to the quantities in 2000, some highlights concerning management of the PCs include:

Disposal

- Total disposal quantities, including offsite disposal, decreased. Onsite disposal of PCs increased and reached a peak in 2002 but has been decreasing since 2002.
- Disposal was used for approximately 41 percent, or approximately 35 million pounds, of PCs in 2004. Offsite disposal accounted for 80 percent of the quantity of PCs that were disposed of.
- Disposal was used for at least 30 percent of the total PC quantity in each of the EPA regions, except in Region 6 where facilities disposed of only approximately 11 percent of their PCs.
- In 5 of the 10 EPA regions, facilities disposed of at least 75 percent of their PC quantities.

Energy Recovery

- Total energy recovery quantities, both onsite and offsite, overall decreased, although in 2004, energy recovery of PCs increased compared to the 2003 quantities. Energy recovery was used for approximately 17 percent, or approximately 14.7 million pounds, of PCs in 2004. Approximately 79 percent of the energy recovery was completed onsite.
- Facilities in Region 1 used energy recovery to manage approximately 65 percent of their total quantity of PCs.

Treatment

- Total treatment quantities, both onsite and offsite, decreased overall, although in 2004, treatment of PCs increased compared to the 2003 quantities.
- Treatment was used for approximately 41 percent, or 35 million pounds, of the PCs in 2004. Onsite treatment accounted for 96 percent of the quantity of PCs that were treated.
- Facilities in Region 6 used treatment to manage approximately 71 percent of their total quantity of PCs. Most of the treatment was completed onsite, primarily using incineration.

Recycling[9]

- Offsite recycling increased while onsite recycling decreased with a total overall recycling decrease. However, in 2004, the recycled quantity increased significantly. Overall, a considerable percentage of PCs has been, and continues to be, recycled. EPA hopes to increase recycling of PCs to the extent feasible rather than disposal, treatment, or energy recovery. Recycling was used to manage approximately 734 million pounds of PCs in 2004. This quantity was approximately 9 times larger than the other methods used to manage PCs.

- Facilities in Regions 2, 5, 7, and 9 had the highest ratios of recycled quantity compared to PC quantity, with double-digit ratios of 10.3, 17.9, 23.7, and 25.1, respectively.

Exhibit 3.5. Trends in Management Methods for Priority Chemicals, 2000–2004

Management Method	TRI Reporting Year				
	2000 (pounds)	2001 (pounds)	2002 (pounds)	2003 (pounds)	2004 (pounds)
Onsite Disposal	4,107,776	6,817,384	8,120,889	7,520,143	7,103,679
Offsite Disposal	33,259,228	30,415,692	28,152,180	30,348,476	28,008,361
Total Disposal	**37,367,004**	**37,233,075**	**36,273,069**	**37,868,619**	**35,112,039**
Onsite Energy Recovery	14,279,123	13,985,899	10,503,009	9,707,277	11,497,377
Offsite Energy Recovery	6,185,285	2,469,170	5,118,901	2,246,386	3,154,577
Total Energy Recovery	**20,464,408**	**16,455,069**	**15,621,909**	**11,953,663**	**14,651,954**
Onsite Treatment	35,706,480	26,625,705	24,905,890	26,106,955	33,431,244
Offsite Treatment	5,876,137	2,204,003	1,316,671	1,101,454	1,529,292
Total Treatment	**41,582,618**	**28,829,708**	**26,222,560**	**27,208,409**	**34,960,536**
Onsite Recycling	534,255,626	424,329,200	425,913,221	427,269,403	447,406,179
Offsite Recycling	255,757,727	231,928,174	263,429,843	213,849,103	286,414,280
Total Recycling	**790,013,354**	**656,257,374**	**689,343,064**	**641,118,506**	**733,820,459**

Exhibits 3.6, 3.7, and 3.8 show trends concerning the disposal of PCs from 2000-2004. In 2004, lead and lead compounds comprised nearly 91 percent of the 35 million pounds of PCs that were land disposed (see Exhibit 3.6).

Exhibit 3.6. Disposal of Priority Chemicals, 2000–2004

Chemical Name	2000 (pounds)	2001 (pounds)	2002 (pounds)	2003 (pounds)	2004 (pounds)	Disposal Quantity Change 2000–2004	Disposal Percent Change 2000–2004	Percent of Total Disposal Quantity (2004)
Lead and lead compounds	31,806,580	33,742,749	34,010,413	35,042,589	31,891,332	84,753	0.3%	90.8%
Polycyclic Aromatic compounds	3,219,247	1,618,516	723,590	939,058	1,152,715	-2,066,532	-64.2%	3.3%
Cadmium and cadmium compounds	1,356,083	919,994	744,924	824,080	885,122	-470,961	-34.7%	2.5%
Naphthalene	619,269	481,138	467,568	545,366	645,508	26,239	4.2%	1.8%
Pendimethalin	24,529	70,570	72,404	139,764	210,222	185,693	757.0%	0.6%

[9] For the purposes of this Report, we primarily focus on the quantities of PCs we believe they offer the greatest opportunities for waste minimization (i.e., those quantities of PCs that are managed via onsite/offsite disposal, treatment, or energy recovery). Recycled quantities already meet the goal of waste minimization and, as such, are not included as part of the PC quantity. Recycled quantities of the PCs are presented for the purpose of providing some perspective regarding how much of the PCs are already recycled compared to the quantities (disposal, treatment, energy recovery) potentially still available for waste minimization.

Exhibit 3.7. Trends in Disposal Quantities of Lead and Lead Compounds, 2000−2004

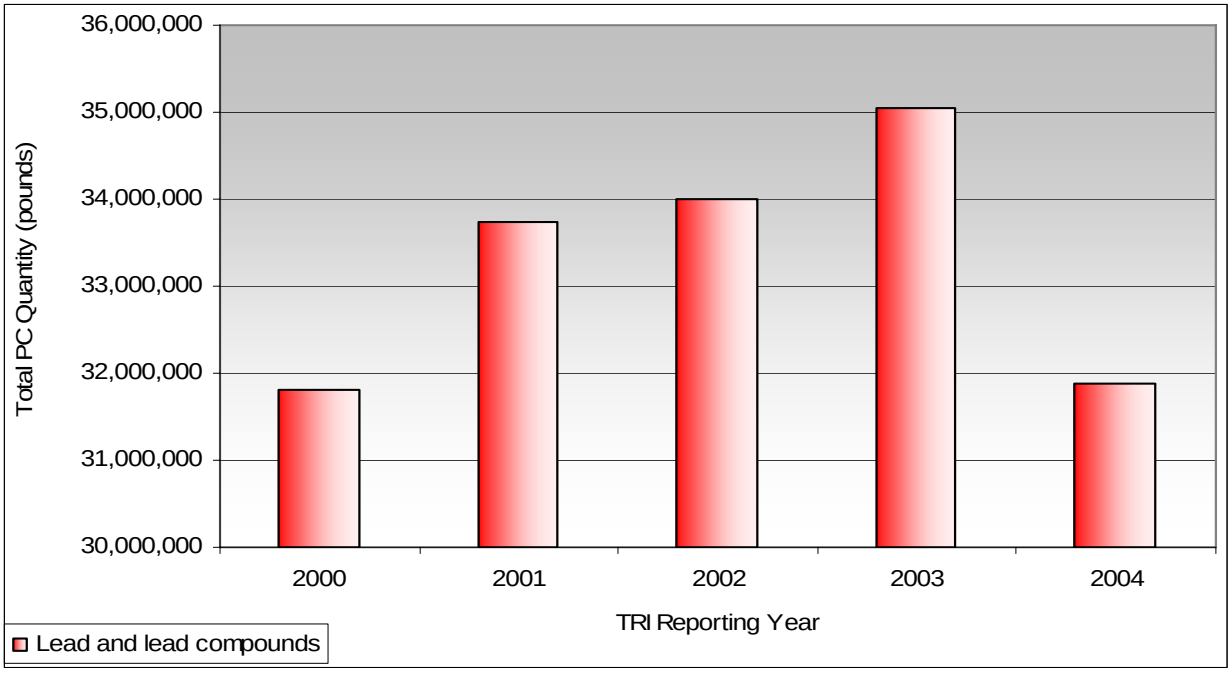
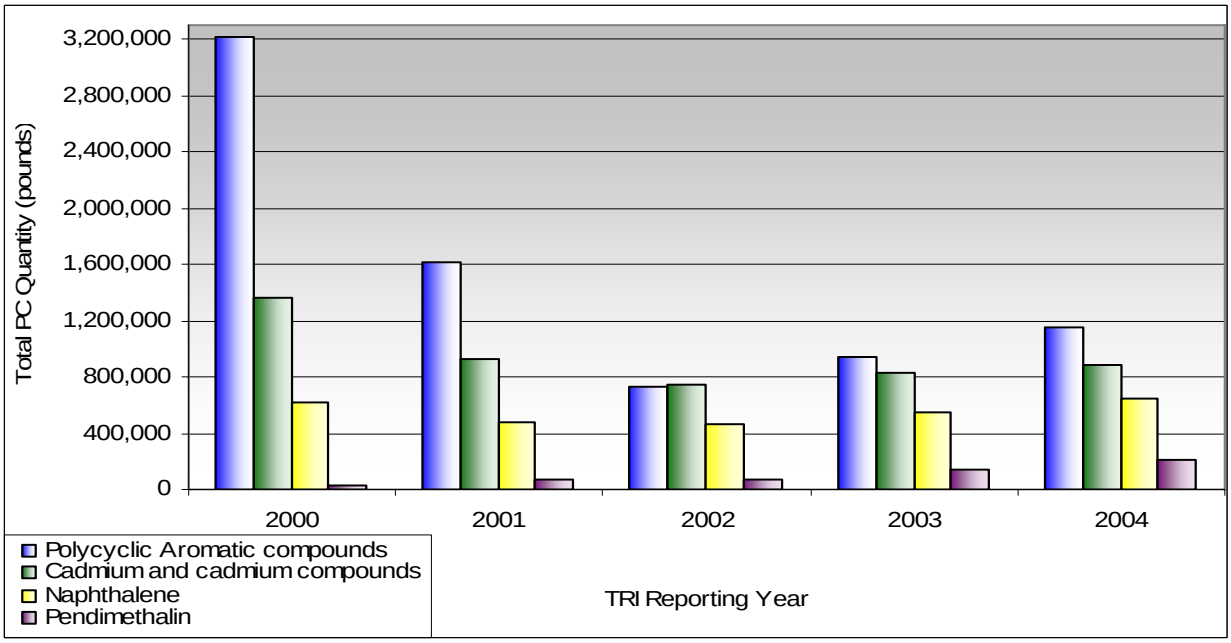


Exhibit 3.8. Trends in Disposal Quantities of PACs, Cadmium and Cadmium Compounds, Naphthalene, and Pendimethalin, 2000−2004



Exhibits 3.9, 3.10, and 3.11 show trends concerning the use of energy recovery for PCs from 2000-2004. The five PCs shown in Exhibit 3.9 accounted for approximately 95 percent of the 14.7 million pounds of PCs sent to energy recovery in 2004.

Exhibit 3.9. Energy Recovery of Priority Chemicals, 2000−2004

Chemical Name	2000 (pounds)	2001 (pounds)	2002 (pounds)	2003 (pounds)	2004 (pounds)	Energy Recovery Quantity Change 2000−2004	Energy Recovery Percent Change 2000−2004	Percent of Total Energy Recovery Quantity (2004)
Polycyclic aromatic compounds	8,677,000	8,236,116	6,859,497	5,946,455	6,677,304	-1,999,695	-23.0%	45.6%
Naphthalene	4,949,512	5,534,195	5,012,871	4,195,410	5,496,651	547,139	11.1%	37.5%
Phenanthrene	178,622	98,317	2,196,260	749,069	1,226,086	1,047,464	586.4%	8.4%
Hexachlorobenzene	167,073	350,900	201,616	301,990	332,723	165,650	99.1%	2.3%
Benzo(g,h,i)perylene	1,841,028	798,706	210,133	171,364	255,560	-1,585,468	-86.1%	1.7%

Exhibit 3.10. Trends in Energy Recovery Quantities of PACs and Naphthalene, 2000−2004

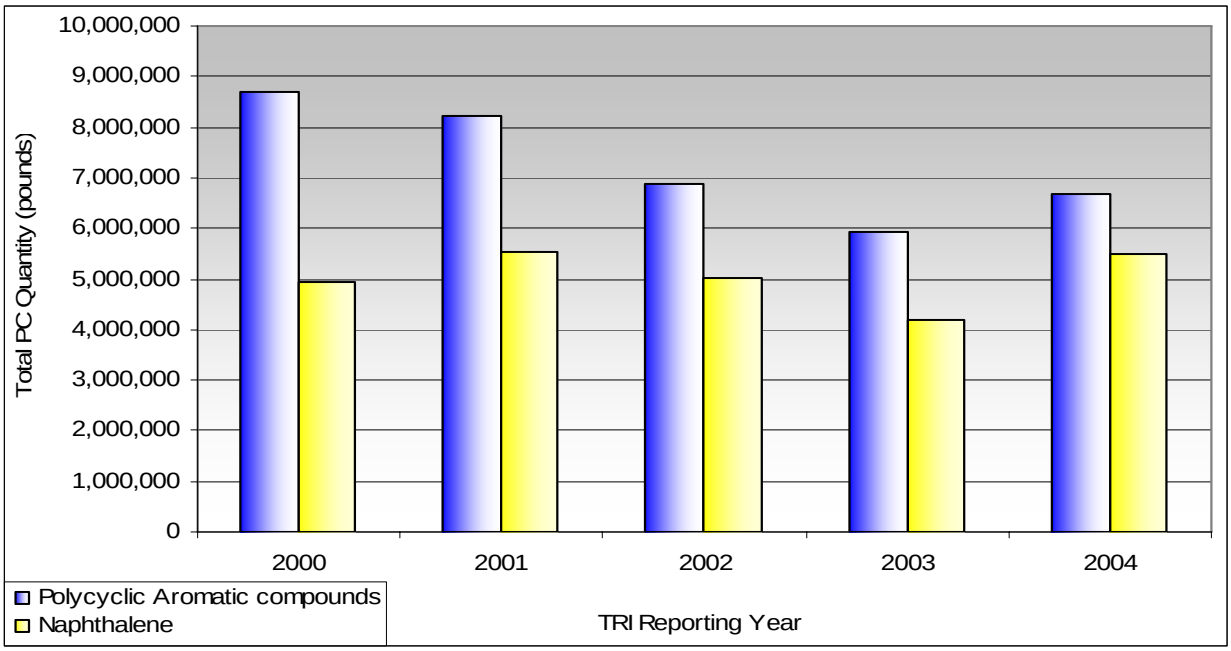
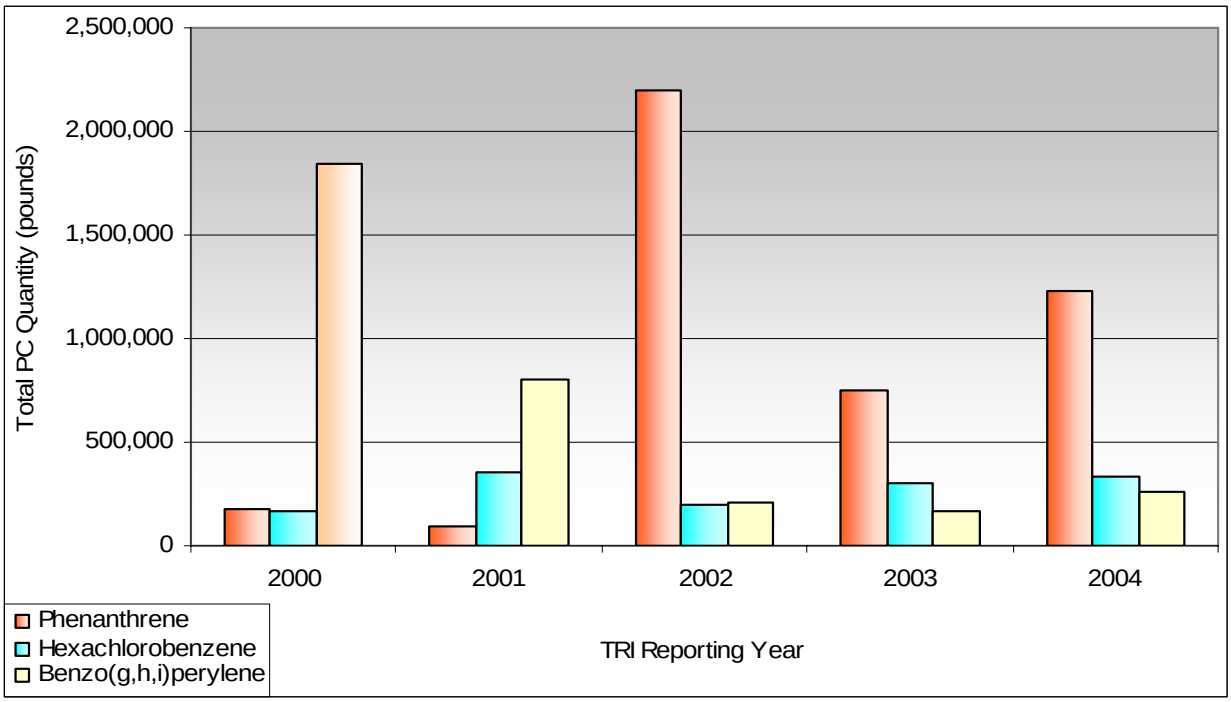


Exhibit 3.11. Trends in Energy Recovery Quantities of Phenanthrene, Hexachlorobenzene, and Benzo(g,h,i)perylene, 2000−2004



Exhibits 3.12, 3.13, and 3.14 show trends concerning the treatment of PCs for 2000-2004. The PCs shown in Exhibit 3.12 accounted for approximately 95 percent of the 35 million pounds of PCs treated in 2004. We believe much of this increase resulted from quantities of several PCs reported by a few large facilities. For example, new equipment installed at a Louisiana facility substantially improved this facility's ability to detect PCs in waste streams measurements, which may mean that the increase may not be real.

Exhibit 3.12. Treatment of the Priority Chemicals, 2000−2004

Chemical Name	2000 (pounds)	2001 (pounds)	2002 (pounds)	2003 (pounds)	2004 (pounds)	Treatment Quantity Change 2000−2004	Treatment Percent Change 2000−2004	Percent of Total Treatment Quantity (2004)
Hexachloro-1,3-butadiene	9,022,857	6,404,178	5,086,762	5,504,668	7,874,619	-1,148,238	-12.7%	22.5%
Naphthalene	8,856,797	3,979,180	5,548,040	5,553,696	6,939,616	-1,917,181	-21.6%	19.8%
Hexachlorobenzene	5,754,663	5,400,490	4,000,842	3,954,274	6,135,821	381,158	6.6%	17.6%
Polycyclic aromatic compounds	4,673,803	4,227,491	5,191,965	5,769,728	5,979,074	1,305,271	27.9%	17.1%
Hexachloroethane	4,462,309	3,689,031	3,849,238	2,553,948	3,626,347	-835,962	-18.7%	10.4%
1,2,4-trichlorobenzene	669,681	1,691,092	1,401,739	1,521,634	1,750,443	1,080,762	161.4%	5.0%
Phenanthrene	818,822	63,250	70,549	995,472	1,035,638	216,817	26.5%	3.0%

Exhibit 3.13. Trends in Treatment Quantities of Hexachloro-1,3-butadiene, Naphthalene, and Hexachlorobenzene, 2000−2004

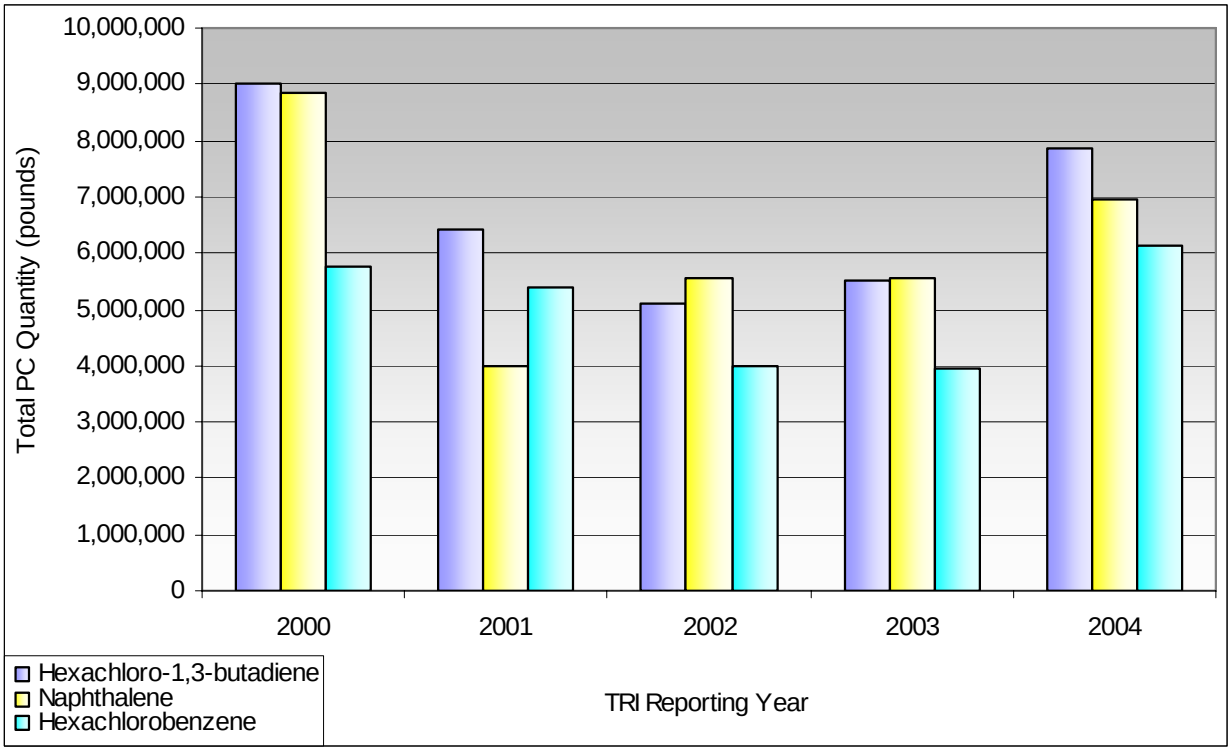
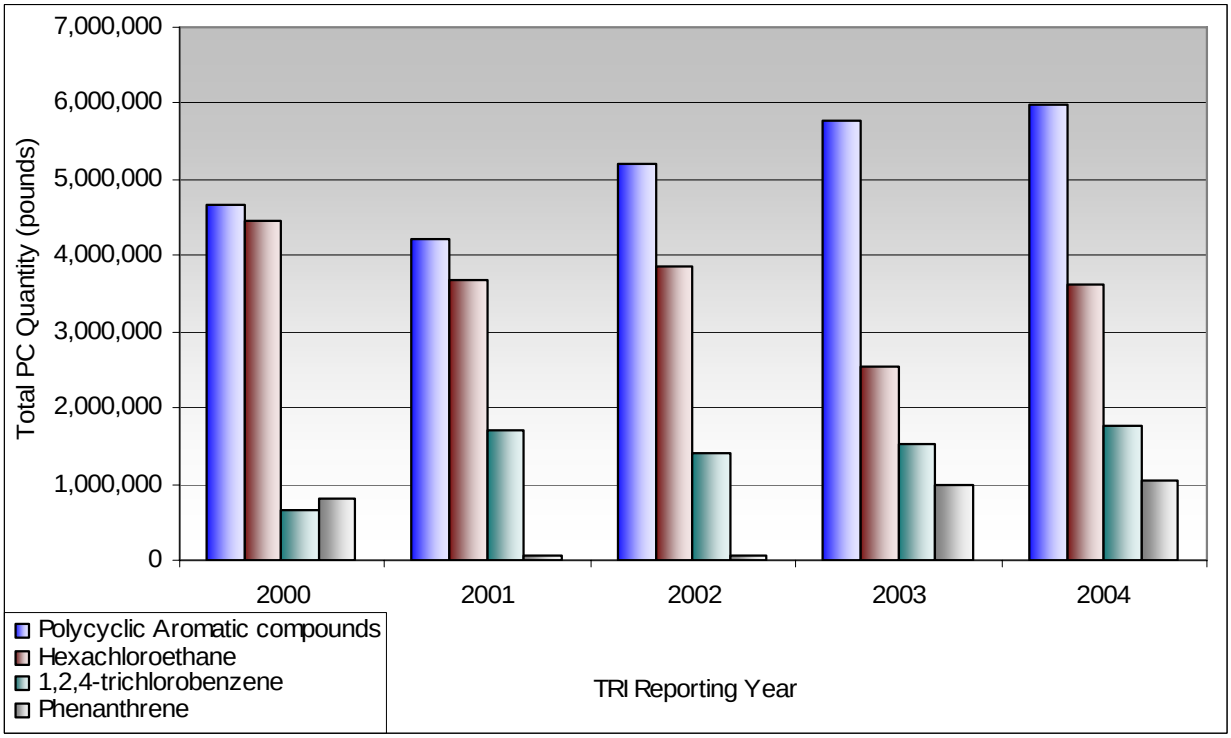


Exhibit 3.14. Trends in Treatment Quantities of PACs, Hexachloroethane, 1,2,4-Tricholorobenzene, and Phenanthrene, 2000−2004



Exhibits 3.15, 3.16, and 3.17 show trends concerning the recycling of PCs for 2000-2004. The PCs shown in Exhibit 3.15 account for more than 99 percent of the 734 million pounds of PCs that were recycled in 2004, with lead and lead compounds comprising approximately 96 percent of the total recycled quantity. Lead and lead compounds have dominated the recycling quantity since 2000 and showed a significant increase in 2004. In 2004, there was also a large increase in the quantity of hexachlorobenzene that was recycled compared to the quantities recycled in 2000 and in 2003.

Exhibit 3.15. Recycling of Priority Chemicals, 2000–2004

Chemical Name	2000 (pounds)	2001 (pounds)	2002 (pounds)	2003 (pounds)	2004 (pounds)	Recycling Quantity Change 2000–2004	Recycling Percent Change 2000–2004	Percent of Total Recycling Quantity (2004)
Lead and lead compounds	770,164,125	643,916,565	653,983,019	615,627,694	707,210,558	-62,953,567	-8.2%	96.4%
Naphthalene	12,247,468	6,330,744	25,698,374	18,495,108	19,249,442	7,001,974	57.2%	2.6%
Hexachloroethane	1,027,963	850,000	3,530,419	2,336,505	2,279,804	1,251,841	121.8%	0.3%
Polycyclic aromatic compounds	3,014,337	2,750,150	2,431,817	1,711,810	1,362,226	-1,652,111	-54.8%	0.2%
Hexachlorobenzene	17,139	6,310	740,144	399,607	1,004,270	987,131	5759.6%	0.1%

Exhibit 3.16. Trends in Recycling Quantities of Lead and Lead Compounds, 2000–2004

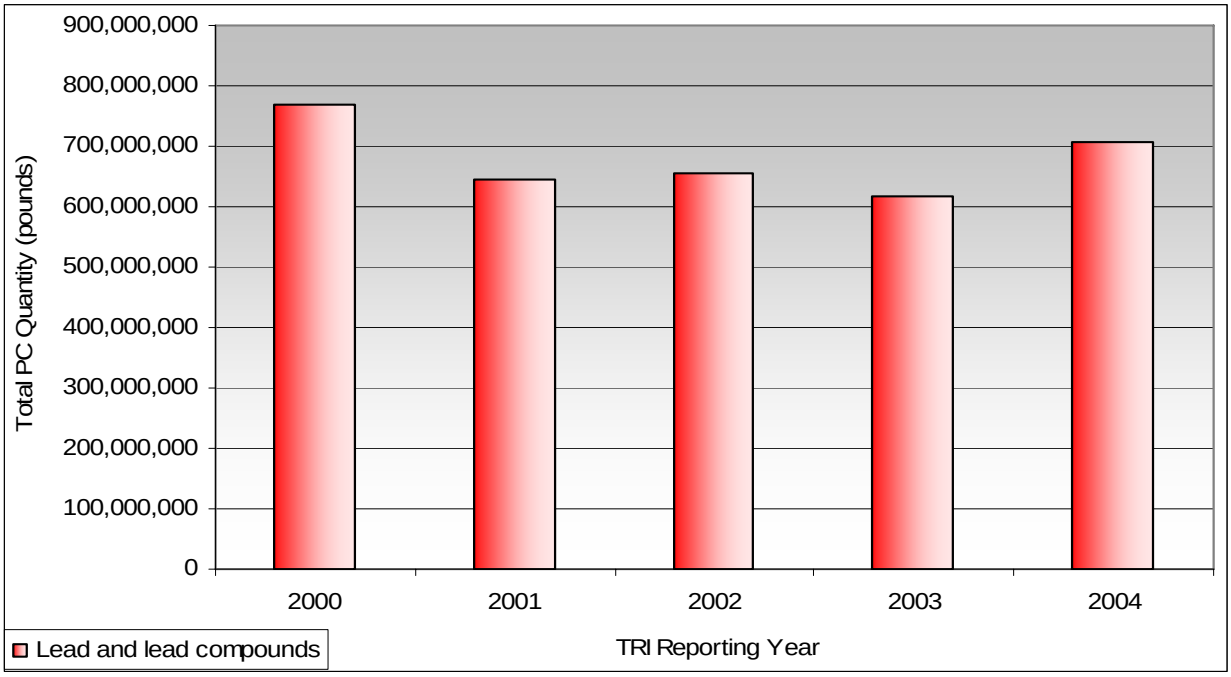
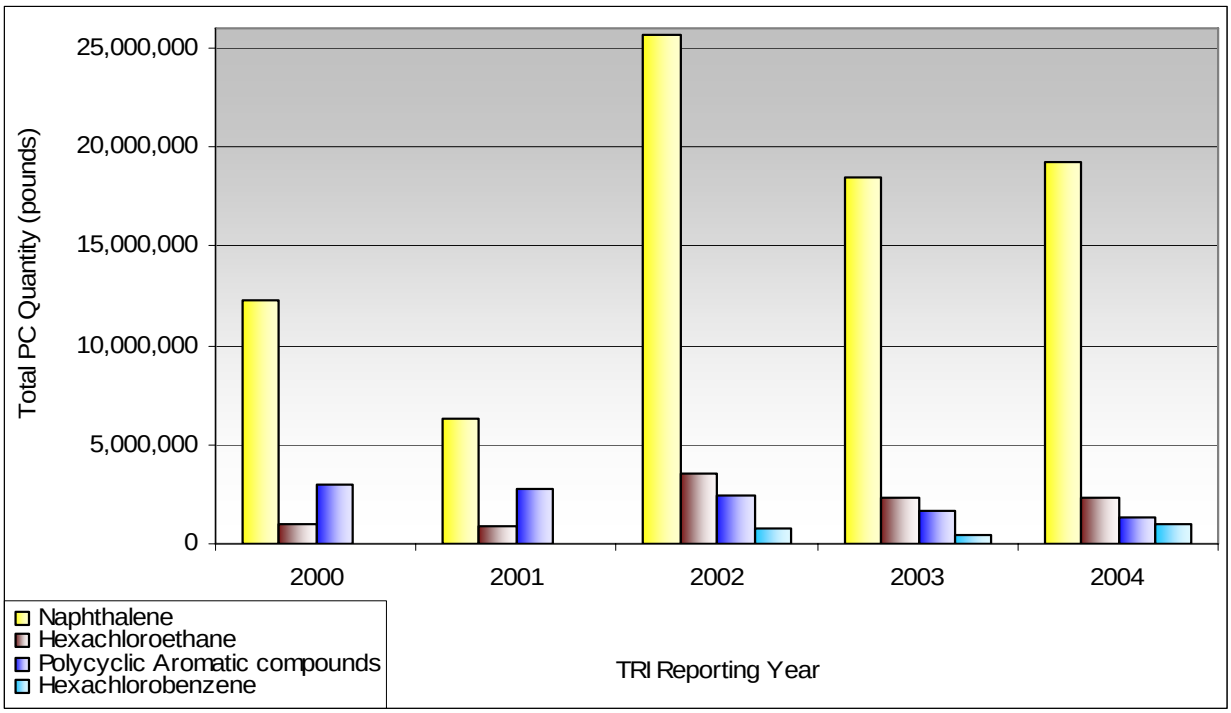


Exhibit 3.17. Trends in Recycling Quantities of Naphthalene, Hexachloroethane, PACs, and Hexachlorobenzene, 2000–2004



Regional Trends for Priority Chemicals

Exhibits 3.18, 3.19, and 3.20 show the PC quantities by EPA region. In 2004, facilities in three regions (Regions 4, 5, and 6) accounted for approximately 78 percent of the total PC quantity. Since 2000, the PC quantity has decreased in eight of the 10 regions, by approximately 14.7 million pounds. In six of the regions, the decrease ranged from approximately 13 percent to 60 percent. The quantity of PCs reported by two facilities in Region 6, in particular, prevented even a more significant decrease in 2004. We believe much of this increase resulted from quantities of several PCs reported by a few large facilities. For example, new equipment installed at a Louisiana facility substantially improved this facility's ability to detect PCs in waste streams measurements, which may mean that the increase may not be real.

Exhibit 3.18. Priority Chemical Quantities, by EPA Region, 2000–2004

EPA Region	2000 (pounds)	2001 (pounds)	2002 (pounds)	2003 (pounds)	2004 (pounds)	Percent of Total Quantity in 2004	Percent Change (2000–2004)
1	692,031	1,296,061	992,188	1,015,191	974,060	1.1%	40.8%
2	3,780,115	2,397,353	1,771,400	1,634,991	1,515,379	1.8%	-59.9%
3	6,872,619	8,236,014	4,641,193	5,365,645	5,772,427	6.8%	-16.0%
4	15,720,641	13,317,344	11,246,372	13,755,172	15,083,786	17.8%	-4.1%
5	12,961,758	11,266,248	14,484,354	12,995,416	12,606,550	14.9%	-2.7%
6	43,807,170	32,894,859	32,266,470	29,076,522	38,032,731	44.9%	-13.2%
7	6,866,323	6,139,848	6,806,872	7,863,979	4,685,420	5.5%	-31.8%
8	1,610,232	1,361,753	1,156,742	1,484,643	1,655,855	2.0%	2.8%
9	3,263,947	2,976,036	2,895,183	2,645,921	2,606,581	3.1%	-20.1%
10	3,839,195	2,632,336	1,856,763	1,193,210	1,791,740	2.1%	-53.3%
Total	**99,414,030**	**82,517,853**	**78,117,538**	**77,030,691**	**84,724,529**	**100.0%**	**-14.8%**

Exhibit 3.19. 2004 Priority Chemical Quantity by EPA Region

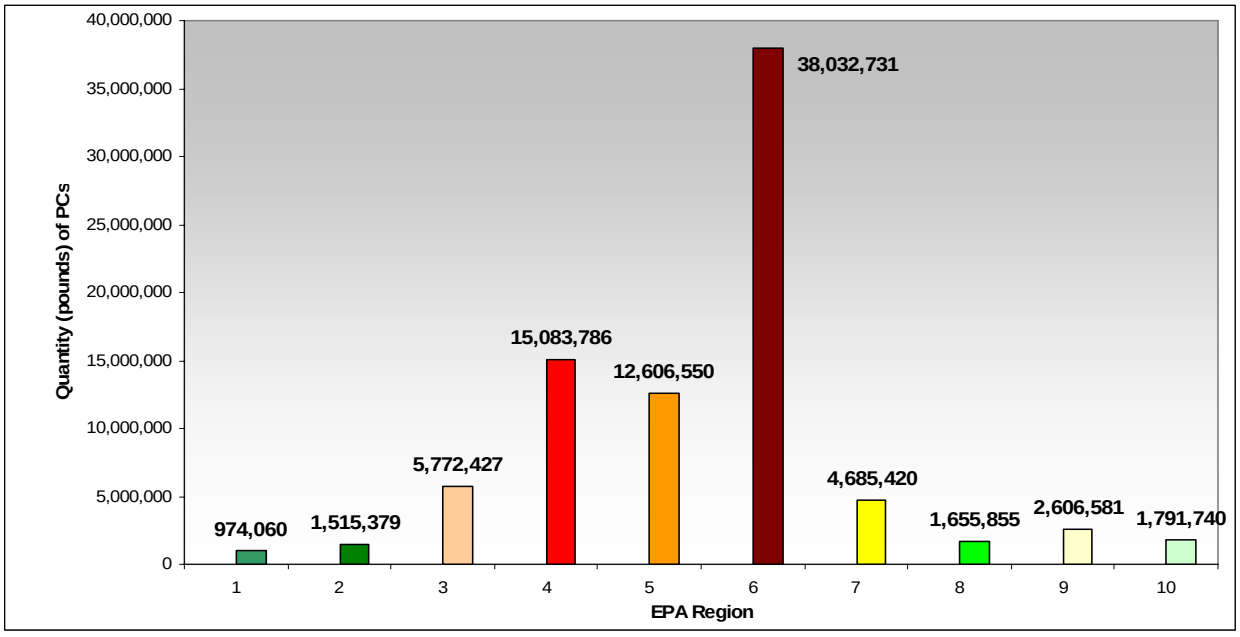
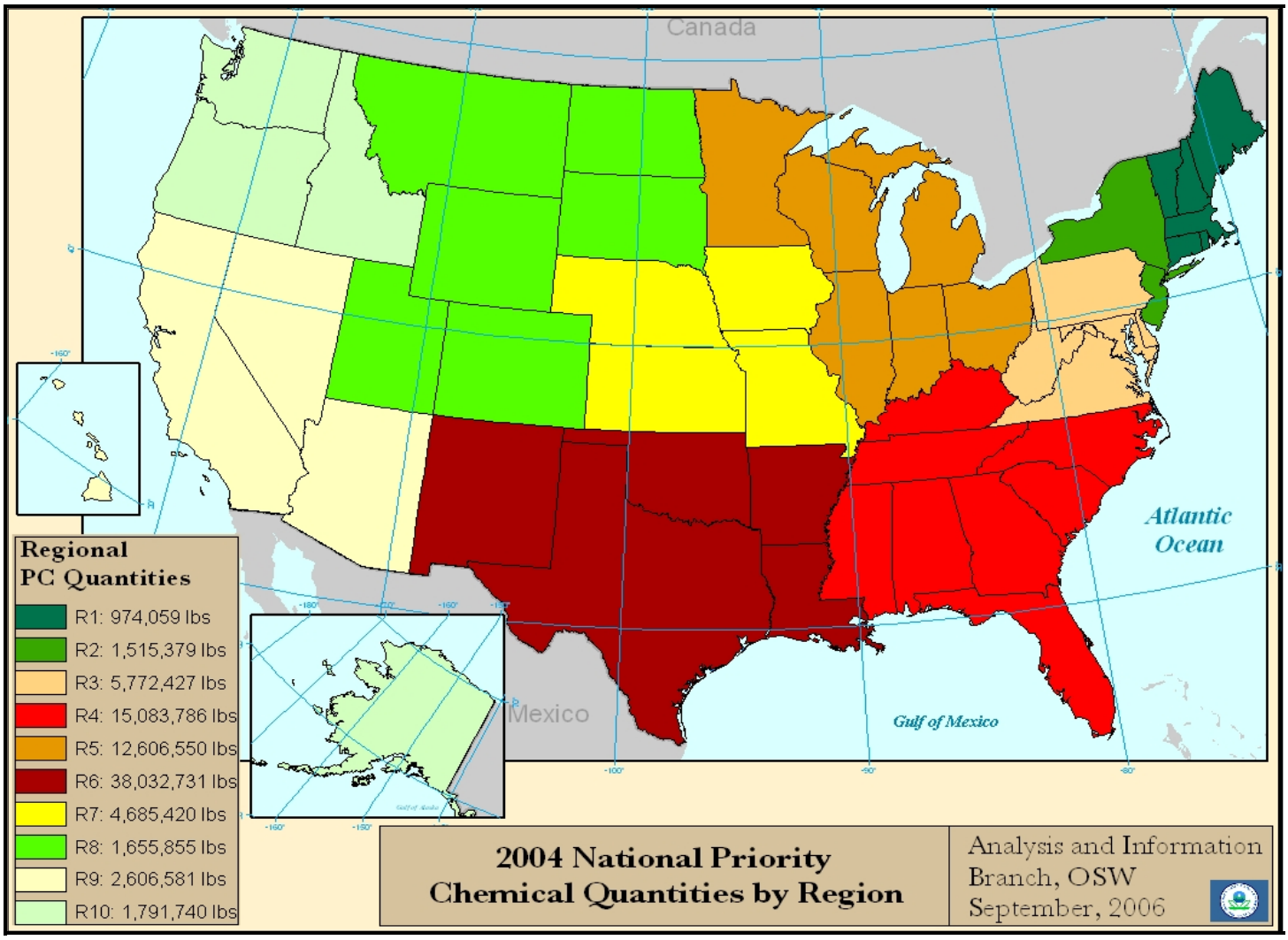


Exhibit 3.20. National Map of 2004 Priority Chemical Quantities, by EPA Region

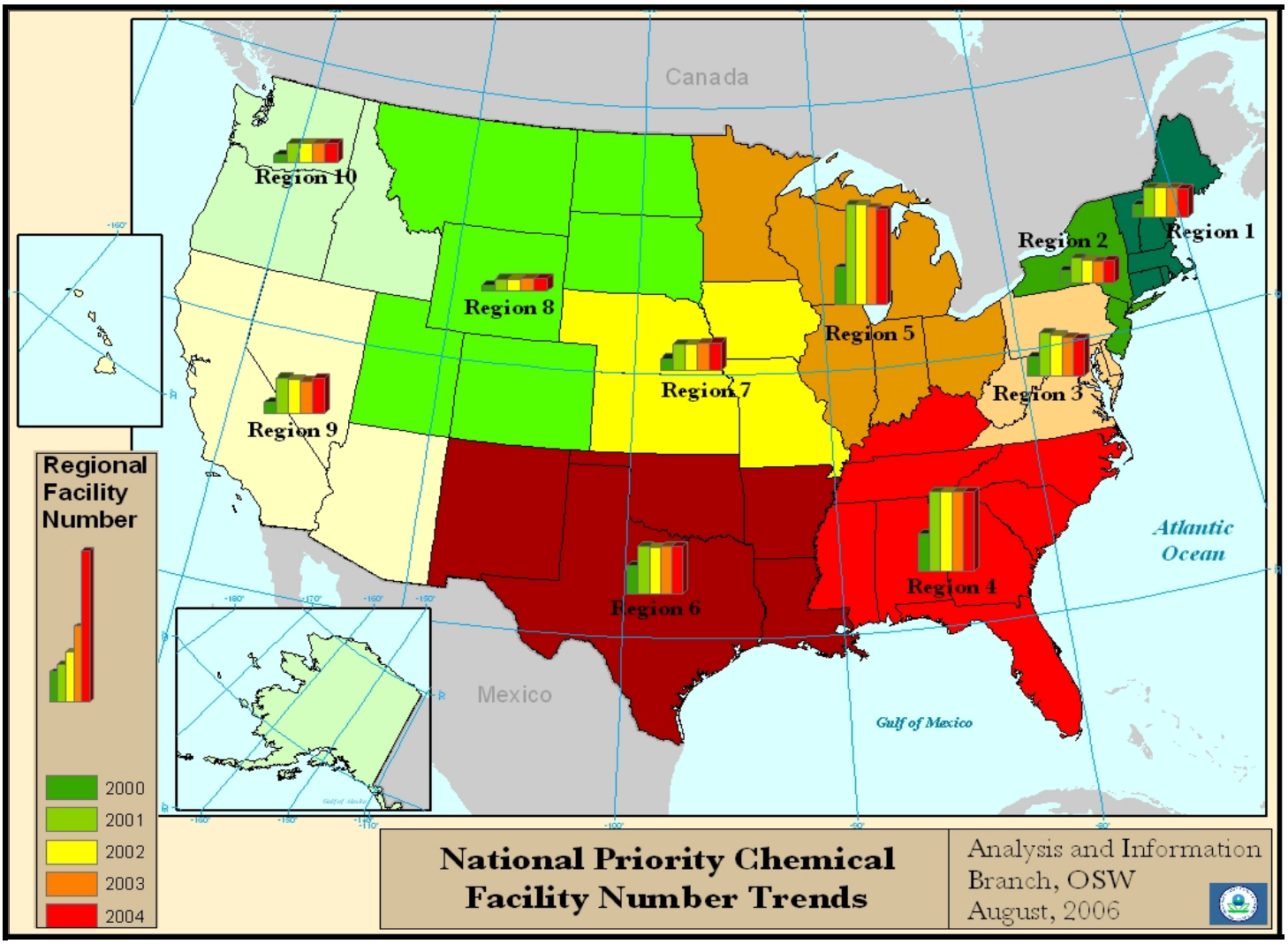


Exhibits 3.21 and 3.22 show the number of facilities that reported the PCs in each region from 2000-2004. Approximately 57 percent of the facilities were located in Regions 4, 5, and 6. The increase in the number of reporting facilities in 2001 is likely due to the lowered TRI reporting threshold for lead and lead compounds. Since 2001 the number of facilities reporting PCs has leveled off in each of the Regions.

Exhibit 3.21. Number of Facilities Reporting Priority Chemicals, by EPA Region, 2000−2004

EPA Region	2000	2001	2002	2003	2004	Percent of Total Number of Facilities in 2004
1	163	400	397	389	381	7.0%
2	175	347	307	298	313	5.7%
3	261	570	539	518	501	9.2%
4	493	1,056	1,056	1,053	1,060	19.5%
5	549	1,468	1,474	1,432	1,399	25.7%
6	377	631	619	631	626	11.5%
7	153	329	326	344	351	6.4%
8	65	133	133	142	140	2.6%
9	145	455	437	414	445	8.2%
10	93	225	228	226	228	4.2%
Total facilities	**2,474**	**5,614**	**5,516**	**5,447**	**5,444**	**100.0%**

Exhibit 3.22. Trends in the Number of Facilities Reporting Priority Chemicals, by EPA Region, 2000−2004



Exhibits 3.23 and 3.24 show the number of facilities and quantities of each PC reported in 2004, by EPA region. Some observations from these exhibits include:

- Approximately 84 percent of the facilities reported lead and lead compounds in 2004.
- Facilities in Regions 4, 5, and 6 accounted for approximately 59 percent of the lead and lead compounds.
- Facilities in Region 4 also reported much of the anthracene, benzo(g,h,i) perylene, naphthalene, phenanthrene, and PACs.
- Facilities in Region 6 reported much of the 1,2,4 trichlorobenzene, cadmium and cadmium compounds, hexachloro-1,3-butadiene, hexachlorobenzene, hexachloroethane, naphthalene, pentachlorobenzene, phenanthrene, and PACs.

Exhibit 3.23. Number of Facilities Reporting a Priority Chemical Quantity in 2004 by Chemical and EPA Region

Chemical Name	Total Number of Facilities	EPA Region									
		1	2	3	4	5	6	7	8	9	10
1,2,4-Trichlorobenzene	17	0	0	0	5	4	5	1	0	1	1
2,4,5-Trichlorophenol	1	0	1	0	0	0	0	0	0	0	0
Anthracene	39	0	0	6	5	11	12		2	1	2
Benzo(g,h,i)perylene	380	36	27	48	84	50	67	18	12	21	17
Cadmium and cadmium compounds	63	1	6	7	14	20	9	2	0	3	1
Dibenzofuran	11	0	0	3	1	7	0	0	0	0	0
Dioxin and dioxin-like compounds	377	15	13	24	118	65	82	8	6	12	34
Heptachlor	2	0	1	0	0	0	1	0	0	0	0
Hexachloro-1,3-butadiene	4	0	0	0	0	0	4	0	0	0	0
Hexachlorobenzene	35	0	4	1	5	2	15	2	2	2	2
Hexachloroethane	9	0	0	0	0	1	6	1	0	0	1
Lead and lead compounds	4,593	323	252	422	899	1,240	470	287	121	390	189
Mercury and mercury compounds	589	31	24	57	119	121	96	52	25	41	23
Methoxychlor	1	0	0	0	0	0	1	0	0	0	0
Naphthalene	638	27	54	59	79	126	144	40	19	54	36
Pendimethalin	7	0	0	0	3	2	0	2	0	0	0
Pentachlorobenzene	7	0	0	0	1	1	5	0	0	0	0
Pentachlorophenol	15	0	0	0	8	0	2	1	0	1	3
Phenanthrene	55	0	0	7	7	12	16	1	6	4	2
Polychlorinated biphenyls	36	1	5	2	5	8	13	1	0	1	0
Polycyclic aromatic compounds	684	63	46	64	161	92	131	30	21	38	38
Quintozene	3	0	0	0	1	0	1	0	0	1	0
Trifluralin	9	0	0	0	1	3	1	4	0	0	0
Total	**7,575**	**497**	**433**	**700**	**1,516**	**1,765**	**1,081**	**450**	**214**	**570**	**349**

Exhibit 3.24. Quantity of Priority Chemicals Reported by Facilities in EPA Regions in 2004

Chemical Name	Total National PC Quantity	EPA Region									
		1	2	3	4	5	6	7	8	9	10
1,2,4-Trichlorobenzene	1,888,685	0	0	0	60,954	60,183	1,637,031	245	0	6,490	123,783
2,4,5-Trichlorophenol	5,083	0	5,083	0	0	0	0	0	0	0	0
Anthracene	520,669	0	0	13,412	389,870	42,040	74,997	0	258	6	87
Benzo(g,h,i)perylene	374,449	3,679	7,059	58,824	218,198	25,093	54,070	998	4,027	817	1,683
Cadmium and cadmium compounds	885,122	3,621	14,421	76,988	113,189	63,426	404,177	37,001	0	26,299	146,000
Dibenzofuran	24,942	0	0	8,217	116	16,610	0	0	0	0	0
Dioxin and dioxin-like compounds	484	0	0	2	109	63	297	8	0	1	3
Heptachlor	775	0	9	0	0	0	766	0	0	0	0
Hexachloro-1,3-butadiene *	7,874,707	0	0	0	0	0	7,874,707	0	0	0	0
Hexachlorobenzene *	6,485,490	0	3,521	140	124,996	14	6,351,393	76	65	5,285	0
Hexachloroethane *	3,772,853	0	0	0	0	11,529	3,742,765	693	0	0	17,867
Lead and lead compounds	31,967,610	281,452	743,143	3,274,457	6,768,339	9,032,565	3,022,428	4,062,679	1,516,155	2,073,876	1,192,517
Mercury and mercury compounds	51,697	532	794	3,484	13,532	9,167	6,682	1,512	588	14,081	1,325
Methoxychlor	766	0	0	0	0	0	766	0	0	0	0
Naphthalene *	13,081,776	66,146	617,285	1,719,079	1,744,989	2,367,760	5,851,732	207,469	22,991	206,754	277,570
Pendimethalin	475,695	0	0	0	187,711	26,549	0	261,435	0	0	0
Pentachlorobenzene	608,691	0	0	0	30	59	608,602	0	0	0	0
Pentachlorophenol	117,264	0	0	0	101,266	0	4,205	9,015	0	607	2,171
Phenanthrene	2,348,265	0	0	45,657	924,232	190,644	1,177,789	1,232	2,439	5,157	1,115
Polychlorinated Biphenyls	67,758	61	155	376	43,327	295	22,962	25	0	558	0
Polycyclic aromatic compounds	13,809,093	618,569	123,909	571,792	4,366,887	757,983	7,186,841	34,488	109,333	11,670	27,620
Quintozene	280,987	0	0	0	25,485	0	523	0	0	254,979	0
Trifluralin	81,668	0	0	0	556	2,569	10,000	68,543	0	0	0

* The total number of facilities in this exhibit is different from the total number of facilities shown in Exhibit 3.21 because numerous facilities reported more than one PC.
* We believe much of this increase resulted from quantities of several PCs reported by a few large facilities. For example, new equipment installed at a Louisiana facility substantially improved this facility's ability to detect PCs in waste streams compared to previous measurements, which may mean that the increase may not be real.

Exhibits 3.25 through 3.28 show how PCs were managed by facilities in the EPA regions in 2004.

Exhibit 3.25. Disposal of Priority Chemicals in 2004 by EPA Region

EPA Region	Total PC Quantity (pounds)	Total Disposal (pounds)	Percent of Region's Total PC Quantity	Onsite Disposal (pounds)	Percent of Region's Total PC Quantity	Offsite Disposal (pounds)	Percent of Region's Total PC Quantity
1	974,060	299,797	30.8%	21,217	2.2%	278,581	28.6%
2	1,515,379	783,506	51.7%	228,561	15.1%	554,945	36.6%
3	5,772,427	3,960,972	68.6%	138,504	2.4%	3,822,468	66.2%
4	15,083,786	7,336,776	48.6%	3,663,691	24.3%	3,673,085	24.4%
5	12,606,550	9,623,787	76.3%	386,340	3.1%	9,237,447	73.3%
6	38,032,731	3,984,999	10.5%	1,448,176	3.8%	2,536,824	6.7%
7	4,685,420	4,116,622	87.9%	191,331	4.1%	3,925,291	83.8%
8	1,655,855	1,520,686	91.8%	223,372	13.5%	1,297,313	78.3%
9	2,606,581	2,129,365	81.7%	389,597	14.9%	1,739,768	66.7%
10	1,791,740	1,355,529	75.7%	412,890	23.0%	942,639	52.6%
Total	**84,724,529**	**35,112,039**	**41.4%**	**7,103,679**	**8.4%**	**28,008,361**	**33.1%**

Exhibit 3.26. Energy Recovery of Priority Chemicals in 2004 by EPA Region

EPA Region	Total PC Quantity (pounds)	Total Energy Recovery (pounds)	Percent of Region's Total PC Quantity	Onsite Energy Recovery (pounds)	Percent of Region's Total PC Quantity	Offsite Energy Recovery (pounds)	Percent of Region's Total PC Quantity
1	974,060	631,048	64.8%	624,136	64.1%	6,913	0.7%
2	1,515,379	276,429	18.2%	64,680	4.3%	211,749	14.0%
3	5,772,427	1,039,231	18.0%	902,119	15.6%	137,112	2.4%
4	15,083,786	3,571,869	23.7%	2,631,424	17.4%	940,445	6.2%
5	12,606,550	1,135,990	9.0%	470,119	3.7%	665,870	5.3%
6	38,032,731	7,198,211	18.9%	6,261,519	16.5%	936,692	2.5%
7	4,685,420	78,997	1.7%	60,433	1.3%	18,564	0.4%
8	1,655,855	119,826	7.2%	107,669	6.5%	12,157	0.7%
9	2,606,581	364,973	14.0%	142,519	5.5%	222,454	8.5%
10	1,791,740	235,380	13.1%	232,760	13.0%	2,621	0.1%
Total	**84,724,529**	**14,651,954**	**17.3%**	**11,497,377**	**13.6%**	**3,154,577**	**3.7%**

Exhibit 3.27. Treatment of Priority Chemicals in 2004 by EPA Region

EPA Region	Total PC Quantity (pounds)	Total Treatment (pounds)	Percent of Region's Total PC Quantity	Onsite Treatment* (pounds)	Percent of Region's Total PC Quantity	Offsite Treatment (pounds)	Percent of Region's Total PC Quantity
1	974,060	43,214	4.4%	35,052	3.6%	8,162	0.8%
2	1,515,379	455,443	30.1%	321,049	21.2%	134,395	8.9%
3	5,772,427	772,224	13.4%	686,370	11.9%	85,854	1.5%
4	15,083,786	4,175,141	27.7%	3,889,995	25.8%	285,147	1.9%
5	12,606,550	1,846,773	14.6%	1,737,808	13.8%	108,966	0.9%
6	38,032,731	26,849,522	70.6%	26,132,939	68.7%	716,583	1.9%
7	4,685,420	489,800	10.5%	373,992	8.0%	115,809	2.5%
8	1,655,855	15,344	0.9%	13,317	0.8%	2,028	0.1%
9	2,606,581	112,243	4.3%	54,183	2.1%	58,059	2.2%
10	1,791,740	200,831	11.2%	186,540	10.4%	14,291	0.8%
Total	**84,724,529**	**34,960,536**	**41.3%**	**33,431,244**	**39.5%**	**1,529,292**	**1.8%**

Exhibit 3.28. Recycling of Priority Chemicals in 2004 by EPA Region

EPA Region	Total PC Quantity * (pounds)	Total Recycling (pounds)	Onsite Recycling (pounds)	Offsite Recycling (pounds)	Ratio of Recycling Quantity to the PC Quantity
1	974,060	1,706,418	45,057	1,661,361	1.8
2	1,515,379	27,086,394	4,556,097	22,530,297	17.9
3	5,772,427	35,126,171	22,134,265	12,991,906	6.1
4	15,083,786	139,925,061	47,287,140	92,637,920	9.3
5	12,606,550	316,775,087	254,466,989	62,308,098	25.1
6	38,032,731	62,666,645	37,459,341	25,207,304	1.6
7	4,685,420	111,049,196	62,314,771	48,734,425	23.7
8	1,655,855	5,967,494	109,325	5,858,170	3.6
9	2,606,581	26,740,167	15,919,676	10,820,491	10.3
10	1,791,740	6,777,825	3,113,517	3,664,308	3.8
Total	**84,724,529**	**733,820,459**	**447,406,179**	**286,414,280**	**8.7**

* The term "PC quantity" refers to those quantities of the PCs that were managed using onsite/offsite disposal, treatment, and energy recovery

State and Territory Trends for the Priority Chemicals

Exhibits 3.29 and 3.30 present PC quantities reported by facilities in the states and territories for 2000-2004, shown by decreasing percentage of the total PC quantity in 2004. Facilities in four states accounted for approximately 55 percent of PCs in 2004 – Louisiana (27.6%), Texas (14.0%), Indiana (7.5%), and Alabama (5.7%).

Exhibit 3.29. Priority Chemical Quantity, by State, 2000−2004

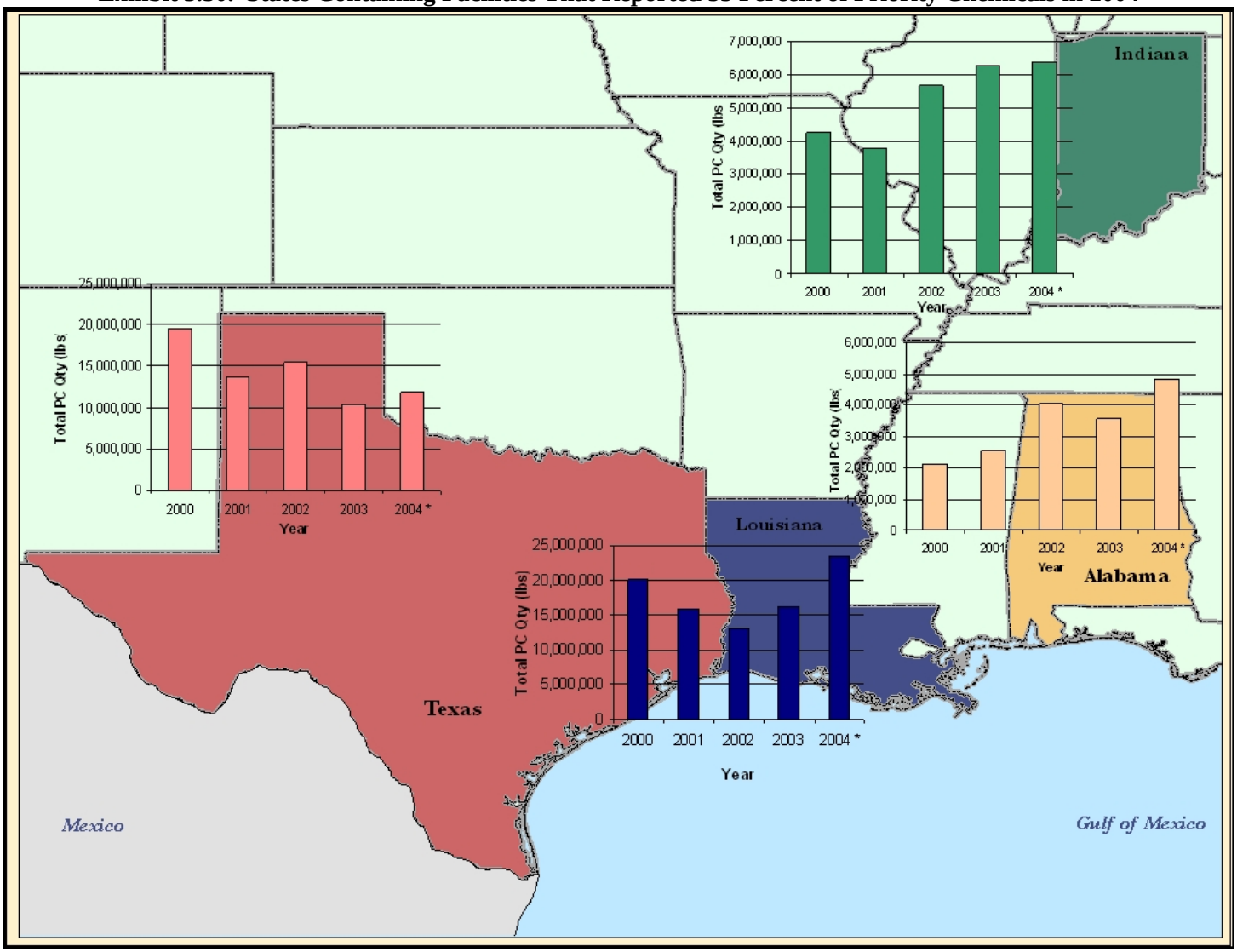
State	2000 (pounds)	2001 (pounds)	2002 (pounds)	2003 (pounds)	2004 * (pounds)	Quantity Change (2000-2004)	Percent Change (2000-2004)	Percent of Total Quantity (2004)
LA	20,098,306	15,884,928	13,129,090	16,159,788	23,355,142	3,256,837	16.2%	27.6%
TX	19,612,433	13,688,615	15,519,701	10,394,920	11,865,248	-7,747,185	-39.5%	14.0%
IN	4,237,757	3,775,377	5,655,358	6,247,207	6,372,489	2,134,732	50.4%	7.5%
AL	2,124,105	2,556,724	4,034,629	3,548,430	4,820,405	2,696,300	126.9%	5.7%
PA	5,142,211	4,367,197	2,920,623	3,593,373	3,452,501	-1,689,710	-32.9%	4.1%
KY	1,211,888	1,325,681	1,362,241	3,505,823	3,381,870	2,169,982	179.1%	4.0%
TN	7,554,865	4,805,403	1,435,593	1,908,227	2,643,768	-4,911,097	-65.0%	3.1%
OH	4,788,420	3,793,571	5,322,433	2,887,775	2,570,501	-2,217,919	-46.3%	3.0%
CA	3,230,768	2,725,773	2,517,082	2,237,973	2,279,440	-951,328	-29.4%	2.7%
MO	3,169,384	3,816,041	4,346,745	5,226,054	1,938,928	-1,230,456	-38.8%	2.3%
AR	3,460,012	2,537,291	1,518,807	1,468,070	1,783,801	-1,676,211	-48.4%	2.1%
IL	2,729,009	1,927,432	1,839,611	1,825,651	1,756,677	-972,332	-35.6%	2.1%
NC	757,156	1,151,261	1,184,000	1,390,705	1,481,464	724,308	95.7%	1.7%
WV	693,363	2,157,922	658,960	915,535	1,438,010	744,646	107.4%	1.7%
NE	2,455,729	1,267,149	1,311,585	1,432,225	1,403,197	-1,052,532	-42.9%	1.7%
IA	1,156,742	926,897	1,037,504	1,095,234	1,193,425	36,684	3.2%	1.4%
UT	1,005,959	889,576	929,335	1,183,867	1,093,126	87,167	8.7%	1.3%
SC	1,913,951	1,669,159	1,427,752	1,553,574	1,025,715	-888,236	-46.4%	1.2%
MI	468,967	819,706	696,047	876,275	1,003,728	534,761	114.0%	1.2%
NJ	2,940,163	1,682,384	967,608	919,036	957,360	-1,982,803	-67.4%	1.1%
OK	602,418	704,747	1,939,780	978,642	862,386	259,968	43.2%	1.0%
VA	568,555	952,027	744,965	693,069	722,280	153,725	27.0%	0.9%
ID	525,956	475,348	335,955	265,198	701,123	175,167	33.3%	0.8%
FL	342,908	621,730	598,019	636,520	675,900	332,992	97.1%	0.8%
GA	1,378,091	662,630	858,534	727,835	643,081	-735,010	-53.3%	0.8%
ME	3,339	819,954	612,307	597,810	599,430	596,091	17854.3%	0.7%

Exhibit 3.29. Priority Chemical Quantity, by State, 2000−2004

State	2000 (pounds)	2001 (pounds)	2002 (pounds)	2003 (pounds)	2004 * (pounds)	Quantity Change (2000-2004)	Percent Change (2000-2004)	Percent of Total Quantity (2004)
OR	954,754	822,343	648,299	618,917	562,802	-391,952	-41.1%	0.7%
WI	336,180	448,084	481,481	609,676	561,060	224,880	66.9%	0.7%
NY	804,784	656,817	745,391	660,181	535,920	-268,865	-33.4%	0.6%
WA	2,355,991	1,308,562	841,557	285,979	484,958	-1,871,033	-79.4%	0.6%
MS	437,677	524,756	345,603	484,058	411,584	-26,093	-6.0%	0.5%
CO	65,515	98,394	96,726	183,731	391,446	325,930	497.5%	0.5%
MN	401,424	502,078	489,424	548,832	342,095	-59,329	-14.8%	0.4%
NM	34,001	79,277	159,094	75,102	166,154	132,153	388.7%	0.2%
WY	521,394	357,653	110,168	94,361	151,315	-370,078	-71.0%	0.2%
KS	84,467	129,761	111,038	110,467	149,869	65,402	77.4%	0.2%
MD	366,408	747,725	309,218	148,832	143,127	-223,280	-60.9%	0.2%
MA	331,813	229,371	148,235	146,026	129,238	-202,575	-61.1%	0.2%
HI	1,380	122,219	85,254	98,317	128,706	127,325	9224.0%	0.2%
CT	171,897	143,316	88,408	103,208	126,749	-45,148	-26.3%	0.1%
NV	8,140	27,749	229,746	240,556	114,104	105,965	1301.8%	0.1%
NH	97,027	62,003	111,129	127,489	93,334	-3,693	-3.8%	0.1%
AZ	23,229	94,717	63,082	69,055	83,294	60,065	258.6%	0.1%
AK	2,494	26,083	30,953	23,116	42,858	40,364	1618.2%	0.1%
PR	34,706	57,249	57,793	53,048	17,266	-17,440	-50.3%	0.0%
DE	102,082	10,184	6,672	14,546	16,067	-86,015	-84.3%	0.0%
RI	49,578	18,323	15,697	30,351	12,695	-36,883	-74.4%	0.0%
VT	38,377	23,096	16,412	10,306	12,615	-25,762	-67.1%	0.0%
MT	12,447	6,433	9,280	10,934	12,416	-31	-0.2%	0.0%
ND	3,250	5,743	7,323	9,145	5,634	2,384	73.4%	0.0%
VI	461	902	608	2,726	4,833	4,372	948.4%	0.0%
SD	1,667	3,954	3,911	2,605	1,918	251	15.1%	0.0%
GU	296	5,447	16	19	1,036	740	250.4%	0.0%
DC	0	960	756	290	442	442	NA	0.0%
MP	0	2	2	2	1	1	400.0%	0.0%
AS	134	129	0	0	0	-134	-100.0%	0.0%
Total	**99,414,030**	**82,517,853**	**78,117,538**	**77,030,691**	**84,724,529**	**-14,689,501**	**-14.8%**	**100.0%**

* We believe much of this increase resulted from quantities of several PCs reported by a few large facilities. For example, new equipment installed at a Louisiana facility substantially improved this facility's ability to detect PCs in waste streams compared to previous measurements, which may mean that the increase may not be real.

Exhibit 3.30. States Containing Facilities That Reported 55 Percent of Priority Chemicals in 2004



Overall, 50 percent of facilities in the states and territories reported a decrease in the total quantity of PCs in 2004, while 50 percent reported an increase in the quantity of PCs, as compared to reported quantities in 2000.

Facilities in the following seven states reported the largest decreases in PC quantities:

- Texas: -7.7 million pounds (-39.5%)
- Tennessee: -4.9 million pounds (-65.0%)
- Ohio: -2.2 million pounds (-46.3%)
- New Jersey: -2 million pounds, (-67.4%)
- Washington: -1.9 million pounds (-79.4%)
- Pennsylvania: -1.7 million pounds (-32.9%)
- Arkansas: -1.7 million pounds (-48.4%)

Facilities in another six states (Georgia, South Carolina, California, Illinois, Nebraska, and Missouri) reported a decrease of 700,000 to 1.2 million pounds.

Facilities in the following four states reported the largest increases in PC quantities:

- Louisiana: +3.3 million pounds (+16.2%)[10]
- Alabama: +2.7 million pounds (+126.9%)
- Kentucky: +2.2 million pounds (+179.1%)
- Indiana: +2.1 million pounds (+50.4%)

Facilities in another four states (Michigan, Maine, North Carolina, and West Virginia) reported an increase of more than 500,000 pounds.

Exhibit 3.31 shows the number of facilities reporting the PCs in each state/territory for 2000-2004. In 2004, more than 25 percent of the facilities were located in Ohio, Texas, California, and Pennsylvania. Approximately 52 percent of the facilities were located in 11 states.

Exhibit 3.31. Number of Facilities Reporting Priority Chemicals, by State/Territory, 2000−2004

State	2000	2001	2002	2003	2004	Percent of Total Number of Facilities (2004)
AK	6	9	10	12	13	0.2%
AL	76	153	158	155	154	2.8%
AR	56	85	86	94	82	1.5%
AS	1	1	0	0	0	0.0%
AZ	10	58	55	66	67	1.2%
CA	122	360	349	316	337	6.2%
CO	18	49	48	52	48	0.9%
CT	48	94	93	86	87	1.6%
DC	0	2	2	2	3	0.1%
DE	12	15	12	13	12	0.2%
FL	48	127	130	132	131	2.4%
GA	64	145	151	136	150	2.8%
GU	2	4	2	2	4	0.1%
HI	2	8	9	9	12	0.2%
IA	43	80	85	94	97	1.8%
ID	13	31	29	28	27	0.5%
IL	103	282	279	280	289	5.3%
IN	92	247	242	230	227	4.2%
KS	29	57	58	60	67	1.2%
KY	59	121	116	120	121	2.2%
LA	76	110	108	109	102	1.9%
MA	49	164	162	170	162	3.0%
MD	18	32	35	31	34	0.6%
ME	18	35	35	34	40	0.7%
MI	71	209	212	199	193	3.5%
MN	35	106	108	101	90	1.7%
MO	60	144	135	139	133	2.4%
MP	1	1	1	1	1	0.0%
MS	46	88	91	87	79	1.5%
MT	8	13	13	12	14	0.3%
NC	65	175	163	167	168	3.1%
ND	3	5	8	7	7	0.1%

[10] In 2004, the quantity significantly increased for three PCs [hexachloro-1,3-butadiene, hexachlorobenzene, and hexachloroethane] reported by a few large facilities. For example, new equipment installed at a Louisiana facility substantially improved this facility's ability to detect PCs in waste streams measurements, which may mean that the increase may not be real.

Exhibit 3.31. Number of Facilities Reporting Priority Chemicals, by State/Territory, 2000−2004

State	2000	2001	2002	2003	2004	Percent of Total Number of Facilities (2004)
NE	21	48	48	51	54	1.0%
NH	25	52	54	48	49	0.9%
NJ	71	126	115	105	112	2.1%
NM	9	17	20	24	22	0.4%
NV	7	23	21	20	24	0.4%
NY	94	200	174	171	179	3.3%
OH	192	419	421	408	392	7.2%
OK	31	61	64	63	72	1.3%
OR	23	70	76	80	81	1.5%
PA	149	344	328	323	304	5.6%
PR	8	20	17	20	20	0.4%
RI	18	46	41	40	32	0.6%
SC	65	112	115	112	112	2.1%
SD	3	14	13	16	16	0.3%
TN	70	135	132	144	145	2.7%
TX	205	358	341	341	348	6.4%
UT	22	41	42	42	43	0.8%
VA	52	130	121	109	105	1.9%
VI	2	1	1	2	2	0.0%
VT	5	9	12	11	11	0.2%
WA	51	115	113	106	107	2.0%
WI	56	205	212	214	208	3.8%
WV	30	47	41	40	43	0.8%
WY	11	11	9	13	12	0.2%
Total	**2,474**	**5,614**	**5,516**	**5,447**	**5,444**	**100.0%**

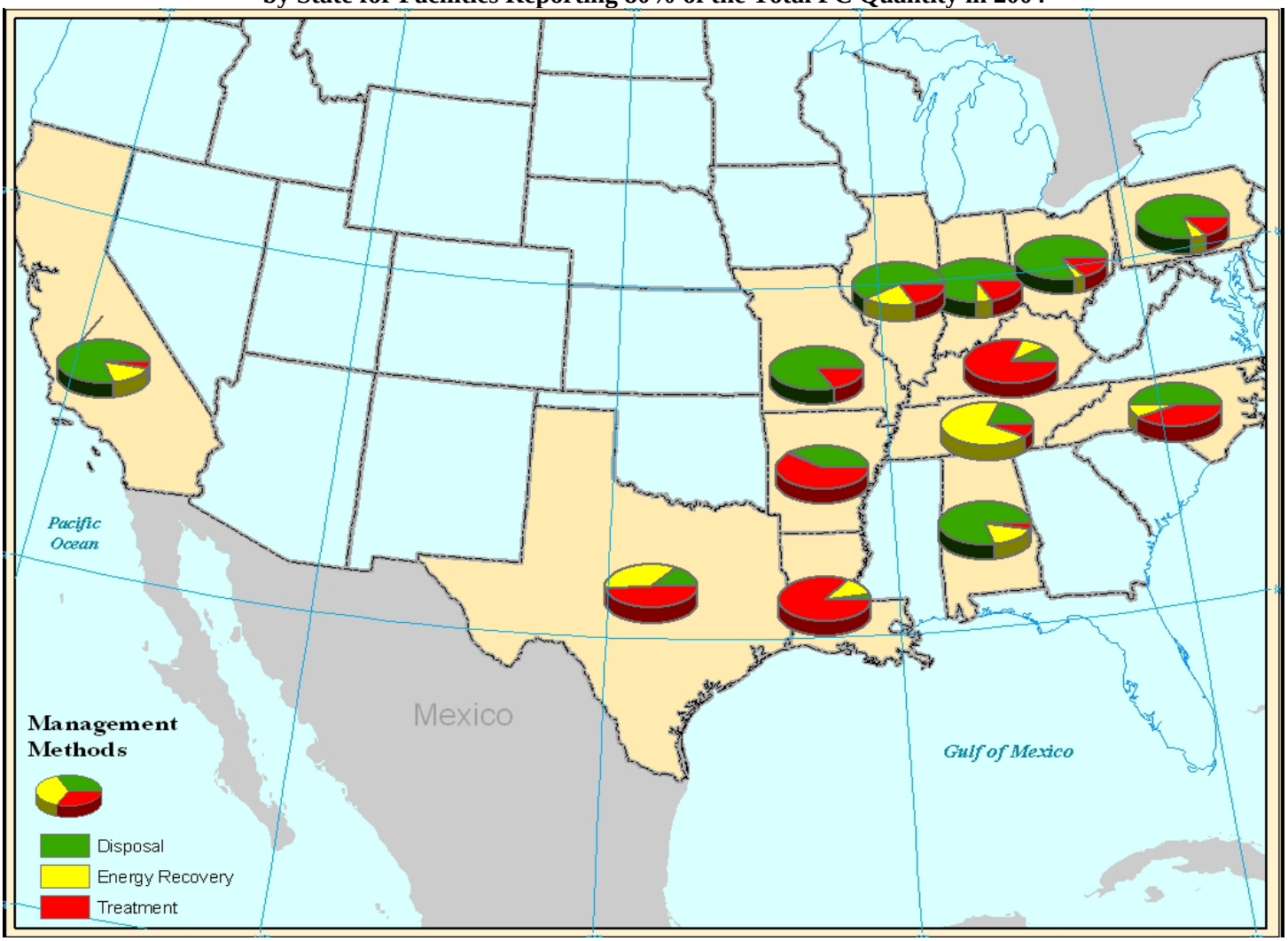
Exhibits 3.32 and 3.33 show how the PCs were managed by facilities in the 13 states in which facilities reported 80 percent of the total PC quantity in 2004. Facilities in eight states used disposal as the primary method to manage PCs. Tennessee facilities reported using energy recovery as its primary management method.

Exhibit 3.32. Management Methods for Priority Chemicals by State with Facilities Reporting 80% of the Total PC Quantity in 2004

State	Total PC Quantity	Percent of Total National PC Quantity	Onsite Disposal	Offsite Disposal	Onsite Energy Recovery	Offsite Energy Recovery	*Onsite Treatment	Offsite Treatment	Onsite Recycling	Offsite Recycling
LA	23,355,142	27.6%	316,912	343,464	2,692,402	8,753	19,942,369	51,242	28,447,142	5,985,665
TX	11,865,248	14.0%	822,388	784,560	3,557,014	914,991	5,124,420	661,875	6,883,504	11,488,491
IN	6,372,489	7.5%	128,212	4,666,686	190,881	276,665	1,104,801	5,245	38,304,952	6,313,072
AL	4,820,405	5.7%	2,010,055	1,819,009	30,100	809,000	149,422	2,820	19,562,225	2,080,999
PA	3,452,501	4.1%	7,055	2,747,171	113,130	119,275	409,556	56,314	21,120,688	7,344,519
KY	3,381,870	4.0%	162,792	219,557	316,009	10,580	2,609,377	63,554	5,832,762	4,136,006
TN	2,643,768	3.1%	330,356	138,214	1,966,091	3,430	162,022	43,655	11,020,383	49,325,869
OH	2,570,501	3.0%	81,273	2,019,102	38,477	61,934	346,038	23,677	15,362,084	36,331,831
CA	2,279,440	2.7%	142,160	1,661,861	142,519	222,436	53,472	56,992	15,100,178	10,520,290
MO	1,938,928	2.3%	169,123	1,433,802	43	12,613	301,590	21,756	17,132,052	15,660,613
AR	1,783,801	2.1%	98,219	618,786	12,103	6,642	1,046,047	2,005	1,780,636	5,563,007
IL	1,756,677	2.1%	49,674	996,833	124,031	284,520	223,173	78,446	5,693,962	12,577,520
NC	1,481,464	1.7%	375,301	622,881	24,762	47,611	357,923	52,986	128,830	17,928,186

* We believe much of this increase resulted from quantities of several PCs reported by a few large facilities. For example, new equipment installed at a Louisiana facility substantially improved this facility's ability to detect PCs in waste streams measurements, which may mean that the increase may not be real.

Exhibit 3.33. Map of Management Methods for Priority Chemicals by State for Facilities Reporting 80% of the Total PC Quantity in 2004



Exhibits 3.34 through 3.37 show the states with facilities that primarily managed PCs using the indicated management method. Some observations from these exhibits are:

Disposal (See Exhibit 3.34)

- Facilities in 18 states accounted for approximately 80 percent of the total disposal quantity for the PCs in 2004.
- Except for facilities in Louisiana, Texas, and Arkansas, disposal was the primary method used to manage PCs. Most of the disposal was offsite.

Energy Recovery (See Exhibit 3.35)

- Facilities in seven states accounted for approximately 81 percent of the total energy recovery quantity in 2004.
- Energy recovery was used to manage the majority of PCs in three of these states (Maine, Tennessee, and West Virginia). Most of the energy recovery was conducted onsite.

Treatment (See Exhibit 3.36)

- Facilities in seven states accounted for approximately 90 percent of the total PC treatment quantity in 2004.
- Treatment was used to manage the majority of PCs in three of these states (Louisiana, Kentucky, and Arkansas). Approximately 86 percent of the PC quantity in Louisiana was managed using treatment (primarily incineration).

Recycling (See Exhibit 3.37)

- Facilities in these 12 states accounted for approximately 82 percent of the total recycling quantity of PCs in 2004.
- Most of the recycling at facilities in these states was completed onsite.

Exhibit 3.34. Disposal of Priority Chemicals in 2004 by State

State	Total PC Quantity	Percent of Total National PC Quantity	Onsite Disposal	Offsite Disposal	Total Disposal	Percent of Total National PC Disposal Quantity	Percent of State's total PC Quantity
IN	6,372,489	7.5%	128,212	4,666,686	4,794,898	13.7%	75.2%
AL	4,820,405	5.7%	2,010,055	1,819,009	3,829,064	10.9%	79.4%
PA	3,452,501	4.1%	7,055	2,747,171	2,754,225	7.8%	79.8%
OH	2,570,501	3.0%	81,273	2,019,102	2,100,375	6.0%	81.7%
CA	2,279,440	2.7%	142,160	1,661,861	1,804,021	5.1%	79.1%
TX	11,865,248	14.0%	822,388	784,560	1,606,949	4.6%	13.5%
MO	1,938,928	2.3%	169,123	1,433,802	1,602,925	4.6%	82.7%
NE	1,403,197	1.7%	478	1,392,719	1,393,197	4.0%	99.3%
UT	1,093,126	1.3%	91,402	998,747	1,090,149	3.1%	99.7%
IL	1,756,677	2.1%	49,674	996,833	1,046,506	3.0%	59.6%
NC	1,481,464	1.7%	375,301	622,881	998,183	2.8%	67.4%
IA	1,193,425	1.4%	2,984	976,184	979,168	2.8%	82.0%
OK	862,386	1.0%	88,342	746,545	834,888	2.4%	96.8%
MI	1,003,728	1.2%	27,905	800,481	828,386	2.4%	82.5%
AR	1,783,801	2.1%	98,219	618,786	717,004	2.0%	40.2%
ID	701,123	0.8%	245,544	452,096	697,640	2.0%	99.5%
VA	722,280	0.9%	116,979	574,802	691,780	2.0%	95.8%
LA	23,355,142	27.6%	316,912	343,464	660,376	1.9%	2.8%

Exhibit 3.35. Energy Recovery of Priority Chemicals in 2004 by State

State	Total PC Quantity	Percent of Total National PC Quantity	Onsite Energy Recovery	Offsite Energy Recovery	Total Energy Recovery	Percent of Total National PC Energy Recovery Quantity	Percent of State's total PC Quantity
TX	11,865,248	14.0%	3,557,014	914,991	4,472,005	30.5%	37.7%
LA	23,355,142	27.6%	2,692,402	8,753	2,701,155	18.4%	11.6%
TN	2,643,768	3.1%	1,966,091	3,430	1,969,521	13.4%	74.5%
AL	4,820,405	5.7%	30,100	809,000	839,100	5.7%	17.4%
WV	1,438,010	1.7%	765,659	11,817	777,476	5.3%	54.1%
ME	599,430	0.7%	565,473	21	565,494	3.9%	94.3%
IN	6,372,489	7.5%	190,881	276,665	467,546	3.2%	7.3%

Exhibit 3.36. Treatment of Priority Chemicals in 2004 by State

State	Total PC Quantity	Percent of Total National PC Quantity	Onsite Treatment	Offsite Treatment	Total Treatment	Percent of Total National PC Treatment Quantity	Percent of State's total PC Quantity
LA	23,355,142	27.6%	19,942,369	51,242	19,993,611	57.2%	85.6%
TX	11,865,248	14.0%	5,124,420	661,875	5,786,294	16.6%	48.8%
KY	3,381,870	4.0%	2,609,377	63,554	2,672,931	7.6%	79.0%
IN	6,372,489	7.5%	1,104,801	5,245	1,110,045	3.2%	17.4%
AR	1,783,801	2.1%	1,046,047	2,005	1,048,052	3.0%	58.8%
PA	3,452,501	4.1%	409,556	56,314	465,870	1.3%	13.5%
NC	1,481,464	1.7%	357,923	52,986	410,909	1.2%	27.7%

* We believe much of this increase resulted from quantities of several PCs reported by a few large facilities. For example, new equipment installed at a Louisiana facility substantially improved this facility's ability to detect PCs in waste streams compared to previous measurements, which may mean that the increase may not be real.

Exhibit 3.37. Recycling of Priority Chemicals in 2004 by State

State	Total PC Quantity	Percent of Total National PC Quantity	Onsite Recycling	Offsite Recycling	Total Recycling	Percent of Total National PC Recycling Quantity	Percent of Total Recycling Quantity
MN	342,095	0.4%	194,515,439	1,306,104	195,821,543	27%	26.7%
TN	2,643,768	3.1%	11,020,383	49,325,869	60,346,251	8%	8.2%
OH	2,570,501	3.0%	15,362,084	36,331,831	51,693,915	7%	7.0%
KS	149,869	0.2%	31,678,698	19,714,503	51,393,201	7%	7.0%
IN	6,372,489	7.5%	38,304,952	6,313,072	44,618,024	6%	6.1%
LA	23,355,142	27.6%	28,447,142	5,985,665	34,432,807	5%	4.7%
MO	1,938,928	2.3%	17,132,052	15,660,613	32,792,665	4%	4.5%
PA	3,452,501	4.1%	21,120,688	7,344,519	28,465,207	4%	3.9%
IA	1,193,425	1.4%	13,503,973	13,274,952	26,778,925	4%	3.6%
NY	535,920	0.6%	4,489,300	21,235,111	25,724,411	4%	3.5%
CA	2,279,440	2.7%	15,100,178	10,520,290	25,620,468	3%	3.5%
AL	4,820,405	5.7%	19,562,225	2,080,999	21,643,224	3%	2.9%

Industry Sector Trends for Priority Chemicals

In 2004, facilities in more than 320 different Standard Industrial Classification (SIC) codes reported PC quantities. Exhibit 3.38 shows the PC quantities (from 2000-2004) for facilities in those 21 SICs that accounted for 90 percent of the total quantity of PCs in 2004. Facilities in four industry sectors accounted for more than 50 percent of the total quantity of the PCs in 2004: SIC 2869 – Industrial organic chemicals nec (17.7%), SIC 3341 – Secondary non-ferrous metals (12.1%), SIC 3312 – Blast furnaces and steel mills (11.7%), and SIC 2812 – Alkalies and chlorine (9.7%).

Exhibit 3.38. Industry Sector Quantity of Priority Chemicals Reported in 2004 (90% of Total)

Primary SIC	SIC Description	2000 (pounds)	2001 (pounds)	2002 (pounds)	2003 (pounds)	2004 (pounds)	Percent of Total PC Quantity (2004)
2869	Industrial organic chemicals, nec	3,476,741	2,181,138	6,801,654	8,454,049	15,030,270	17.7%
3341	Secondary nonferrous metals	10,528,236	9,720,779	11,947,609	13,102,421	10,228,521	12.1%
3312	Blast furnaces and steel mills	9,628,162	7,944,838	7,195,567	8,226,018	9,915,357	11.7%
2812	Alkalies and chlorine	23,439,114	18,990,611	12,525,132	7,464,800	8,237,520	9.7%
2911	Petroleum refining	6,175,503	2,234,759	4,210,763	3,408,834	4,670,794	5.5%
2895	Carbon black	3,749,053	3,454,362	3,922,074	4,052,612	4,239,664	5.0%
3624	Carbon and graphite products	8,300,424	5,119,620	1,834,267	2,891,018	3,762,327	4.4%
3334	Primary aluminum	3,470,643	2,202,940	1,849,101	2,845,044	2,974,060	3.5%
2865	Cyclic crudes and intermediates	1,992,168	1,432,297	3,103,354	1,639,429	2,734,944	3.2%
9711	National security	163,504	2,248,227	2,605,080	2,787,985	2,561,448	3.0%
2819	Industrial inorganic chemicals, nec	5,953,158	2,616,904	1,919,225	2,354,588	2,252,963	2.7%
3479	Metal coating and allied services	1,821,976	1,648,889	2,501,706	2,759,480	2,000,606	2.4%
3321	Gray and ductile iron foundries	1,108,568	2,683,367	2,980,670	2,547,689	1,782,043	2.1%
2879	Pesticides and agricultural chemicals, nec	1,608,790	2,112,222	758,430	929,664	1,474,156	1.7%
3229	Pressed and blown glass, nec	1,730,917	1,545,626	1,299,721	1,171,476	998,709	1.2%
3691	Storage batteries	788,534	291,593	338,078	561,382	850,982	1.0%
2821	Plastics materials and resins	868,378	558,904	743,783	1,385,285	790,481	0.9%
8733	Noncommercial research organizations	153	203,452	153,948	426,656	500,571	0.6%
3315	Steel wire and related products	955,200	796,302	421,572	502,771	496,974	0.6%
2992	Lubricating oils and greases	357,041	341,029	434,100	459,742	461,080	0.5%
2037	Frozen fruits and vegetables	0	377,766	422,549	417,237	413,030	0.5%
	Total	**86,116,263**	**68,705,626**	**67,968,382**	**68,388,180**	**76,376,501**	**90.1%**

Exhibit 3.39 shows the 26 industry sectors that had 50 percent of the facilities that reported a PC quantity in 2004. It also shows the number of facilities that reported PCs for 2000-2004. In 2004, the number of reporting facilities in SIC 5171 increased by approximately 30 percent. We believe this increase in reporting facilities was due to the lowering of the de minimis TRI reporting levels for naphthalene, from 1.0 percent to 0.1 percent, starting with the 2004 reporting year.

Exhibit 3.39. Number of Facilities Reporting Priority Chemicals, by SIC Code, 2000−2004

Primary SIC	SIC Code Description	2000	2001	2002	2003	2004	Percent of Total Number of Facilities (2004)
3471	Plating and polishing	30	261	249	240	245	4.5%
5171	Petroleum bulk stations and terminals	87	163	156	172	224	4.1%
3672	Printed circuit boards	27	247	206	177	189	3.5%
3714	Motor vehicle parts and accessories	54	159	172	162	150	2.8%
3321	Gray and ductile iron foundries	33	141	138	138	138	2.5%
2911	Petroleum refining	128	130	131	130	136	2.5%
9711	National security	13	109	111	132	128	2.4%
3679	Electronic components, nec	25	114	114	123	118	2.2%
2869	Industrial organic chemicals, nec	83	102	102	106	103	1.9%
3479	Metal coating and allied services	69	106	100	101	97	1.8%
3273	Ready-mixed concrete	2	52	64	77	95	1.7%
3312	Blast furnaces and steel mills	79	91	89	92	95	1.7%
3341	Secondary nonferrous metals	56	81	83	90	95	1.7%
2621	Paper mills	78	95	96	86	89	1.6%
2851	Paints and allied products	50	112	112	94	87	1.6%
2819	Industrial inorganic chemicals, nec	49	94	93	89	85	1.6%
2421	Sawmills and planting mills, general	12	77	80	79	77	1.4%
3357	Nonferrous wire drawing and insulating	72	96	83	78	77	1.4%
2631	Paperboard mills	38	86	75	72	74	1.4%
2821	Plastics materials and resins	50	60	59	62	63	1.2%
3087	Custom compound purchased resins	45	70	69	63	62	1.1%
3691	Storage batteries	68	64	59	58	61	1.1%
2491	Wood preserving	57	60	76	64	60	1.1%
2493	Reconstituted wood products	19	58	55	57	60	1.1%
2611	Pulp mills	69	61	66	61	58	1.1%
2952	Asphalt felts and coatings	46	43	48	59	58	1.1%
	Total	**1,339**	**2,732**	**2,686**	**2,662**	**2,724**	**50%**

Exhibit 3.40 shows how the PCs were managed by facilities in the 21 industry sectors in which facilities reported 90 percent of the total PC quantity in 2004. There were no quantities of PCs reported by facilities in SIC 2037 in 2000. However, in 2001, one facility in this industry sector, located in Maine, began reporting quantities of naphthalene and PACs.

Exhibit 3.40. Management Methods for Priority Chemicals, by SIC Code for Facilities Reporting 90% of the Total PC Quantity in 2004

Primary SIC	SIC Code Description	Total PC Quantity (2004)	Percent of Total PC Quantity	Onsite Disposal	Offsite Disposal	Onsite Energy Recovery	Offsite Energy Recovery	Onsite Treatment	Offsite Treatment	Onsite Recycling	Offsite Recycling
2869	Industrial organic chemicals, nec	15,030,270	17.7%	7,414	87,278	917,634	617,749	12,808,662	591,533	2,054,097	8,811,164
3341	Secondary nonferrous metals	10,228,521	12.1%	2,234,691	7,978,007	15,070	750	3	0	285,530,639	24,707,227
3312	Blast furnaces and steel mills	9,915,357	11.7%	183,356	9,399,124	16,904	0	269,867	46,105	1,342,544	14,225,164
2812	Alkalies and chlorine	8,237,520	9.7%	1,760	4,390	658,584	0	7,560,913	11,873	1,587,820	23,576
2911	Petroleum refining	4,670,794	5.5%	25,385	122,482	111,068	101,845	4,258,727	51,287	7,495,760	113,873
2895	Carbon black	4,239,664	5.0%	482	6,620	3,594,212	0	638,095	256	0	0
3624	Carbon and graphite products	3,762,327	4.4%	14,814	22,758	2,265,239	70	1,458,084	1,362	199,899	9,609
3334	Primary aluminum	2,974,060	3.5%	89,576	50,108	187,075	6,814	2,638,856	1,631	316,561	33,795
2865	Cyclic crudes and intermediates	2,734,944	3.2%	131,899	817,442	164,264	1,171,210	118,830	331,298	1,220,037	252,830
9711	National security	2,561,448	3.0%	2,273,059	118,734	19,371	5,890	135,259	9,134	456,038	559,452
2819	Industrial inorganic chemicals, nec	2,252,963	2.7%	344,904	913,487	986,605	1,649	4,327	1,991	410,484	374,089
3479	Metal coating and allied services	2,000,606	2.4%	5	66,405	536,167	100,749	1,286,251	11,029	3,614	339,986
3321	Gray and ductile iron foundries	1,782,043	2.1%	401,551	1,374,568	0	0	5,923	1	99,844	353,690
2879	Pesticides and agricultural chemicals, nec	1,474,156	1.7%	2,406	14,076	765,647	214,292	288,834	188,901	325,633	107
3229	Pressed and blown glass, nec	998,709	1.2%	2	998,708	0	0	0	0	19,718,130	276,199
3691	Storage batteries	850,982	1.0%	180,434	670,548	0	0	0	0	85,701,981	181,378,416
2821	Plastics materials and resins	790,481	0.9%	2,554	15,941	128,991	379,940	234,979	28,077	1,168,137	59,392
8733	Noncommercial research organizations	500,571	0.6%	35,778	464,704	0	89	0	0	0	39,010
3315	Steel wire and related products	496,974	0.6%	19	496,955	0	0	1	0	1,000	1,795,060
2992	Lubricating oils and greases	461,080	0.5%	3	31,439	0	1,003	428,635		13,060	6
2037	Frozen fruits and vegetables	413,030	0.5%	0	0	412,144	0	886	0	0	0

Exhibits 3.41 through 3.44 show how PCs were managed by facilities in the 21 industry sectors in which facilities reported 90 percent of the total PC quantity in 2004. Some observations from these exhibits are:

Disposal (see Exhibit 3.41)

- Facilities in these 21 industry sectors accounted for 90 percent of the total quantity of PCs disposed of, as well as 50 percent of the total national PC quantity in 2004. Facilities in two of the industry sectors: SIC 3341 – Secondary nonferrous metals and SIC 3312 – Blast furnaces and steel mills, accounted for approximately 56 percent of the total quantity of PCs disposed of.
- For many of these industry sectors, disposal was the only or the primary method used to manage PCs in 2004.
- Facilities in these industry sectors used offsite disposal for approximately 80 percent of the PCs disposed of.

Energy Recovery (see Exhibit 3.42)

- Facilities in these 11 industry sectors accounted for approximately 90 percent of the total quantity of PCs sent to energy recovery, as well as approximately 49 percent of the total national PC quantity in 2004.
- Facilities in two of the industry sectors: SIC 2895 – Carbon black and SIC 3624 – Carbon and graphite products, accounted for approximately 45 percent of the total quantity of PCs sent to energy recovery.
- For approximately one-half of these industry sectors, energy recovery was the primary method used to manage their PCs in 2004.
- Facilities in these industry sectors used onsite energy recovery for approximately 79 percent of the PCs sent to energy recovery.

Treatment (see Exhibit 3.43)

- Facilities in these seven industry sectors accounted for 90 percent of the total quantity of PCs treated, as well as 50 percent of the total national PC quantity in 2004. Facilities in three of the industry sectors, SIC 2869 – Industrial organic chemicals, SIC 2812 – Alkalies and chlorine, and SIC 2911 – Petroleum refining, accounted for approximately 72 percent of the total quantity of PCs treated.
- For many of these industry sectors, treatment was the primary method used to manage PCs in 2004.
- Facilities in these industry sectors used onsite treatment for approximately 98 percent of the PCs treated.

Recycling (see Exhibit 3.44)

- Facilities in these six industry sectors accounted for approximately 91 percent of the total recycling quantity of PCs in 2004. Two of the industry sectors: SIC 3341 – Secondary nonferrous metals and SIC 3691 – Storage batteries, accounted for approximately 79 percent of the total quantity of recycled PCs.
- Approximately 63 percent of the recycling at facilities in these industry sectors was done onsite.

Exhibit 3.41. Disposal of Priority Chemicals in 2004 by SIC Code

Primary SIC	SIC Code Description	Total PC Quantity (2004)	Percent of Total National PC Quantity	Onsite Disposal	Offsite Disposal	Total Disposal	Percent of Total National PC Disposal Quantity	Percent of SIC Total PC Quantity
3341	Secondary nonferrous metals	10,228,521	12.1%	2,234,691	7,978,007	10,212,698	29.1%	99.8%
3312	Blast furnaces and steel mills	9,915,357	11.7%	183,356	9,399,124	9,582,481	27.3%	96.6%
9711	National security	2,561,448	3.0%	2,273,059	118,734	2,391,793	6.8%	93.4%
3321	Gray and ductile iron foundries	1,782,043	2.1%	401,551	1,374,568	1,776,119	5.1%	99.7%
2819	Industrial inorganic chemicals, nec	2,252,963	2.7%	344,904	913,487	1,258,391	3.6%	55.9%
3229	Pressed and blown glass, nec	998,709	1.2%	2	998,708	998,709	2.8%	100.0%
2865	Cyclic crudes and intermediates	2,734,944	3.2%	131,899	817,442	949,341	2.7%	34.7%
3691	Storage batteries	850,982	1.0%	180,434	670,548	850,982	2.4%	100.0%
8733	Noncommercial research organizations	500,571	0.6%	35,778	464,704	500,482	1.4%	100.0%
3315	Steel wire and related products	496,974	0.6%	19	496,955	496,973	1.4%	100.0%
3011	Tires and inner tubes	374,187	0.4%	406	368,549	368,955	1.1%	98.6%
3357	Nonferrous wire drawing and insulating	410,822	0.5%	47,894	316,355	364,249	1.0%	88.7%
3679	Electronic components, nec	358,587	0.4%	215	350,220	350,436	1.0%	97.7%
2621	Paper mills	309,811	0.4%	89,552	99,541	189,093	0.5%	61.0%
3471	Plating and polishing	185,475	0.2%	0	185,104	185,104	0.5%	99.8%
3482	Small arms ammunition	184,976	0.2%	1,899	183,077	184,976	0.5%	100.0%
3325	Steel foundries, nec	169,983	0.2%	5,947	163,786	169,733	0.5%	99.9%
2611	Pulp mills	189,496	0.2%	104,797	58,180	162,978	0.5%	86.0%
2061	Raw cane sugar	158,889	0.2%	158,889	0	158,889	0.5%	100.0%
2874	Phosphatic fertilizers	151,088	0.2%	151,086	2	151,088	0.4%	100.0%
2911	Petroleum refining	4,670,794	5.5%	25,385	122,482	147,867	0.4%	3.2%
3334	Primary aluminum	2,974,060	3.5%	89,576	50,108	139,684	0.4%	4.7%

Exhibit 3.42. Energy Recovery of Priority Chemicals in 2004 by SIC Code

Primary SIC	SIC Code Description	Total PC Quantity (2004)	Percent of Total National PC Quantity	Onsite Energy Recovery	Offsite Energy Recovery	Total Energy Recovery	Percent of Total National PC Energy Recovery Quantity	Percent of SIC Total PC Quantity
2895	Carbon black	4,239,664	5.0%	3,594,212	0	3,594,212	24.5%	84.8%
3624	Carbon and graphite products	3,762,327	4.4%	2,265,239	70	2,265,309	15.5%	60.2%
2869	Industrial organic chemicals, nec	15,030,270	17.7%	917,634	617,749	1,535,383	10.5%	10.2%
2865	Cyclic crudes and intermediates	2,734,944	3.2%	164,264	1,171,210	1,335,474	9.1%	48.8%
2819	Industrial inorganic chemicals, nec	2,252,963	2.7%	986,605	1,649	988,254	6.7%	43.9%
2879	Pesticides and agricultural chemicals, nec	1,474,156	1.7%	765,647	214,292	979,939	6.7%	66.5%
2812	Alkalies and chlorine	8,237,520	9.7%	658,584	0	658,584	4.5%	8.0%
3479	Metal coating and allied services	2,000,606	2.4%	536,167	100,749	636,916	4.3%	31.8%
2821	Plastics materials and resins	790,481	0.9%	128,991	379,940	508,930	3.5%	64.4%
2037	Frozen fruits and vegetables	413,030	0.5%	412,144	0	412,144	2.8%	99.8%
4925	Gas production and/or distribution	347,857	0.4%	0	259,653	259,653	1.8%	74.6%

Exhibit 3.43. Treatment of Priority Chemicals in 2004 by SIC Code

Primary SIC	SIC Code Description	Total PC Quantity (2004)	Percent of Total National PC Quantity	Onsite Treatment	Offsite Treatment	Total Treatment	Percent of Total National PC Treatment Quantity	Percent of SIC Total PC Quantity
2869	Industrial organic chemicals, nec	15,030,270	17.7%	12,808,662	591,533	13,400,195	38.3%	89.2%
2812	Alkalies and chlorine	8,237,520	9.7%	7,560,913	11,873	7,572,787	21.7%	91.9%
2911	Petroleum refining	4,670,794	5.5%	4,258,727	51,287	4,310,015	12.3%	92.3%
3334	Primary aluminum	2,974,060	3.5%	2,638,856	1,631	2,640,487	7.6%	88.8%
3624	Carbon and graphite products	3,762,327	4.4%	1,458,084	1,362	1,459,446	4.2%	38.8%
3479	Metal coating and allied services	2,000,606	2.4%	1,286,251	11,029	1,297,280	3.7%	64.8%
2895	Carbon black	4,239,664	5.0%	638,095	256	638,350	1.8%	15.1%

Exhibit 3.44. Recycling of the Priority Chemicals 2004 by SIC Code

Primary SIC	SIC Code Description	Total PC Quantity (2004)	Percent of Total National PC Quantity	Onsite Recycling	Offsite Recycling	Total Recycling	Percent of Total Recycling Quantity
3341	Secondary nonferrous metals	10,228,521	12.1%	285,530,639	24,707,227	310,237,867	42.3%
3691	Storage batteries	850,982	1.0%	85,701,981	181,378,416	267,080,397	36.4%
3714	Motor vehicle parts and accessories	97,491	0.1%	1,305,955	26,724,615	28,030,570	3.8%
3357	Nonferrous wire drawing and insulating	410,822	0.5%	24,629,361	890,204	25,519,565	3.5%
3229	Pressed and blown glass, nec	998,709	1.2%	19,718,130	276,199	19,994,329	2.7%
3312	Blast furnaces and steel mills	9,915,357	11.7%	1,342,544	14,225,164	15,567,708	2.1%

[Page intentionally left blank.]